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DIPLOMOVÁ PRÁCE

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**Life in Late Antiquity: A Contextual
Analysis of the Pottery from the
North Slope of Vesuvius**

**Život v pozdní antice: Kontextuální
analýza keramiky ze severního
svahu Vesuvu**

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Abstract

The present thesis examines two ceramic assemblages from the villa baths at Pollena Trocchia, Italy. The private bath complex was likely part of the Roman villa built at the beginning of the 2nd century AD and buried under the volcanoclastic debris of the AD 472 eruption which provided an important *terminus ante quem*. The previous studies demonstrated that in the 5th century AD the bath complex became a pottery dump and cemetery. Nevertheless, a different picture was drawn from the excavation of the underground cistern in the north-western part of the baths. In order to better understand the purpose of the cistern prior to the eruption, which sealed most of the site, the pottery assemblage from the cistern was compared to the assemblage from one of the bathrooms identified as the *laconicum*. In fact, the cistern uncovered rather low number of individuals compared to the rest of the baths and the ratio of attested pottery classes was limited. While the African imports were almost absent, there was a great number of local products. Most of the shapes consisted of locally produced jugs of big volume, which could be associated with the water-supply system. When possible, the individuals were dated to the second half of the 5th century. Therefore, it is likely that the cistern was still in use a long after the baths were dismantled and turned into a rubbish deposit. Judged by the presence of considerable number of sherds and animal bones, the water-supply system ceased to be used prior to the eruption, probably after the second half of the 5th century AD.

Keywords

Rome, Campania, Pottery, Late Antiquity, Archaeology, Roman cistern

Abstrakt

Tato práce analyzuje dva keramické soubory z vilových lázní v obci Pollena Trocchia v jižní Itálii. Soukromý lázeňský komplex byl pravděpodobně součástí římské vily postavené na počátku 2. století p. Kr. a zničené výbuchem Vesuvu v roce 472, jenž poskytl důležitý *terminus ante quem*. Předchozí studie ukázaly, že v 5. století po Kr. se lázeňský komplex stal skládkou použité keramiky a hbitovem. Nicméně archeologický výzkum podzemní nádrže v severozápadní části lázní přinesl poněkud jiné poznatky. Za účelem lepšího pochopení účelu nádrže před samotnou erupcí, byl keramický soubor z cisterny srovnán se souborem z jedné z koupelen identifikované jako *laconicum*. V porovnání se zbytkem lázní, bylo v nádrži nalezeno nízké množství stěp, a zároveň také poměr zastoupených keramických typů byl limitován. Africká importy, jež byly zastoupeny minimálně, ustoupily velkému množství lokálních produktů. Většina tvarů byla zastoupena objemnými džbány lokální výroby, jež mohou být snadno spojeny s vodním zásobováním. Tam, kde to bylo možné, byly nádoby datovány do druhé poloviny 5. století. Proto je pravděpodobné, že nádrž byla používána ke svému původnímu účelu ještě dlouho poté, co byly lázně demontovány a přeměněny na skládku. S ohledem na přítomnost keramických stěp a zvířecích kostí je možné konstatovat, že obyvatelé přilehlé vily přestali nádrž používat ještě před samotnou erupcí, a to pravděpodobně po druhé polovině 5. století.

Klíčová slova

Itálie, Kampánie, keramika, pozdní antika, archeologie, římská cisterna

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Introduction

Present research focuses on the study of Late Roman pottery from the Roman villa with baths in Pollena Trocchia. The study is part of the Apolline Project, a multidisciplinary research platform operating on the North Slope of Mt. Vesuvius, only a few kilometres from Naples (*Neapolis*). The study of the pottery assemblage from the villa is one of the project's main activities. Since 2007, archaeologists have recovered what is by far the largest studied dataset for Late antique Campania (55 656 fragments). Thus, the Apolline Project fostered numerous ceramic studies, in order to better understand the mechanisms of micro-regional, regional and inter-regional trade through the identification of different productions and their trade networks.

Regarding the Roman villa, the information drawn from pottery analysis is quite limited due to the site's complex depositional history. Four ceramic assemblages analysed in a recent contribution verified the hypothesis that all rooms of the baths served the same purpose (dump and cemetery) during the third quarter of the 5th century AD. Pottery samples were taken from four different rooms: the upper cistern, storage room, *prae-furnium* and *laconicum*. Overall, the four datasets were very much consistent with the general pattern from the site.¹ To enrich this data, the present thesis will analyse the ceramic assemblage from the villa's underground cistern. This water reservoir was sealed by the volcanoclastic debris of the AD 472 eruption, which buried a great part of the present archaeological site, together with the aforementioned rooms. Thus, because of this important *terminus ante quem* for all our data, the aim of this study is to understand the extent to which the pottery assemblage from the cistern is consistent with the rest of the site. For this purpose, I chose to compare my data with the pottery assemblage from the *laconicum*, because it covers all the ceramic productions attested in the villa. At the same time, it represents a manageable dataset (281 NMI), which is also more reliable to the smaller assemblage from the cistern (46 NMI).

¹ DE SIMONE–CASTALDO–SANNINO (*in press*).

Illuminating the dark side of Vesuvius

In the past as well as today, the cone-shaped volcano was a major part of the Neapolitan landscape. The 1,281m high cone of Mount Vesuvius sits in a 4km diameter depression, the Somma Caldera, a remnant of the previously collapsed higher structure. Mt. Somma is now preserved only on the north side of the complex, in the form of a steep wall-like shape, which slopes downwards to the south providing a well-known view of Vesuvius from the sea. The different origin of these elements results in the existence of two unique environments with distinct vegetation.² Due to a presence of several stream-beds, Mt. Somma is covered with a dense woodland on the top and vineyards and orchards in the lower reaches. On the other hand, Vesuvius has almost no vegetation at all, except for low bushes which were recently burned by fires set by local vandals and exacerbated by the summer heat.

Because of its geographic position, the north-eastern side of the volcano must have been an important zone which connected the coastal and inland areas between *Neapolis* and Nola. Although it was previously considered of lesser academic importance than the south-eastern side of the volcano, recent archaeological research led to discovery of several archaeological sites.³ In particular a great number of Roman villas are comparable with the famous sites on the coast.⁴ The first systematic archaeological research of the North Slope of Mount Vesuvius dates to 2002, when the excavation of the so-called Villa of Augustus began at Somma Vesuviana (NA). Without a doubt, the collaboration of the University of Tokyo and Suor Orsola Benincasa University of Naples (under direction of A. De Simone) led to a renaissance archaeological interest in the area.⁵ A few years later, in 2004, the Apolline project was

² DE SIMONE 2014, p. 201.

³ The discovery of Herculaneum (1709) and Pompeii (1748) characterised the modern academic studies for a long time. That and a lack of significant literary sources, as the Roman authors always preferred to describe the luxurious life in the maritime villas, caused the attention to be shifted to the coast, neglecting the rural area between Nola and Neapolis.

⁴ DE SIMONE-PERROTTA-SCARPATI 2011, pp. 62-63.

⁵ AOYAGI-ANGELELLI-MATSUYAMA 2006, pp. 75-109.

founded. Through archaeological research, this multidisciplinary project aims to study the North Vesuvian area (Figure 1) between Neapolis and Nola and, in particular, the archaeological evidence of the town of Pollena Trocchia (NA).



Figure 1 North slope of Vesuvius between the territories of *Neapolis* and *Nola*.

Pollena Trocchia

The town of Pollena Trocchia is located on the western end of the Somma Caldera. Although some archaeological finds from Pollena can be dated as early as the Bourbon period, the first actual collection of finds began in 1930s and is linked to the name of Conte A. Caracciolo.⁶ In this period, the exploration of the Roman *villa rustica* at *San Martino* was carried out.⁷ Mario Pagano, an important figure in the history of the town's archaeology, informs us on the work done by Superintendence of Pompeii that followed in the 1960s through to the 1980s. During these investigations, several Roman villas were discovered, in Pollena Trocchia

⁶ CARACCILO 1908; CARACCILO 1932.

⁷ PAGANO 1988, pp. 244–45.

at *Masseria De Carolis* and at *San Gennariello*, but also in nearby commune of Ponticelli. In *via Verdi* at Pollena, multiple child burials were identified, together with numerous fragments of Roman *amphorae*.⁸ After more than two decades, academic attention was finally revived with the foundation of the Apolline Project in 2004, which chose the Roman baths at *Masseria de Carolis* to become a key case study in its research on Vesuvian archaeology beyond Pompeii.

Roman villa with baths

Archaeological activities near *Traversa Vasca Cozzolino* uncovered a Roman structure, which is believed to be a private bath complex belonging to a Roman villa built on top of the ashes of AD 79 eruption.⁹ The site was first discovered in 1988 at the edges of a pozzolana ash mining pit. From the brief survey undertaken by M. Pagano, it was suggested that the architectural remains, visibly damaged by heavy machinery, were a part of a *villa rustica* built during the 2nd century AD. Pagano identified the site with one partially explored in 1749 by the Bourbons, from which they took 18 000 bricks later used for the construction of the San Carlo Theater in Naples.¹⁰ During the following twenty years, the site became an illegal dump and was gradually filled with rubbish up to the height of several meters. In fact, the first two research campaigns were dedicated to confirming the outline of the site and cleaning activities. For the first time, the site was properly excavated in 2007. The presence of several rooms with elevated floor and adjacent service quarters led to a recognition of what corresponded to a small thermal complex, thereby contradicting Pagano's earlier hypothesis.¹¹

The results of the multi-disciplinary research provided information on many aspects of life in Late Antiquity. The ceramic assemblage from the villa, by far the largest in late antique Campania (55 656 fragments in total, corresponding to 10 129 individuals), has been discussed in many

⁸ DE SIMONE 2008, p. 340.

⁹ DE SIMONE–CASTALDO–SANNINO (*in press*).

¹⁰ PAGANO 1988, pp. 231–32.

¹¹ DE SIMONE 2009, pp. 153, 155.

recent contributions. The recent contextual analysis of four assemblage from the baths noted a rather flat chronology of the site as already suggested by previous studies.¹² Due to spoliation of building elements and the high fragmentation of recovered finds, it was clear that in its later phase the bath complex was abandoned and used as a dump by people either living in the residential part of the villa (currently under adjacent modern buildings) or in the immediate vicinity. Despite the challenging stratigraphy, the careful analysis of ceramic assemblage of the second half of the 5th century AD still provided many interesting results. Several articles were dedicated to the study of local productions and their contribution to the regional and local trade,¹³ also the imported pottery such as ARS¹⁴ and *amphorae*¹⁵ received a great deal of attention. The previously uncovered architectonic remains were analysed by J. Sou ek; this work confirmed the previous hypothesis on the dating of the building material into 2nd century AD.¹⁶ In his recent contribution, the same author recreated the possible water-supply system in the baths.¹⁷ Fostering the multidisciplinary approach, several environmental studies were carried out based on the anthracological¹⁸ and archaeozoological¹⁹ remains found on site, including the complex analysis of cooking ware together with the faunal remains found in the baths.²⁰ This contribution successfully challenged an earlier hypothesis which had argued for significant dietary change between the Imperial and Late Roman periods in Campania. Furthermore, De Simone *et al.* significantly contributed to the ongoing debate on the dating of late antique eruptions of Mount Vesuvius (see below).²¹

¹² DE SIMONE–CASTALDO–SANNINO (in press).

¹³ MARTUCCI et al. (in press); DE SIMONE–MARTUCCI (in press); BENKOVÁ (in press), CASTALDO 2016, DE SIMONE–MARTUCCI–CASTALDO (in press); MARTUCCI et al. 2014, DE SIMONE et al. 2013; MARTUCCI et al. 2012; MARTUCCI–TONIOLO 2011.

¹⁴ MARTUCCI–CASTALDO–DE SIMONE (in press); CASTALDO 2016; CASTALDO 2014.

¹⁵ DE SIMONE–MARTUCCI 2016

¹⁶ SOU EK 2015; DE SIMONE et al. 2012.

¹⁷ SOU EK (in press).

¹⁸ VAIRO–VEAL–DE SIMONE 2013.

¹⁹ DE LUCA–DE SIMONE 2012.

²⁰ DE SIMONE *et al.* 2015.

²¹ DE SIMONE–PEROTTA–SCARPATI 2011; DE SIMONE–CASTALDO–SANNINO (in press); Scarpati–Perotta–De Simone 2016.

Volcanic deposits and their importance for the research

Volcanic activity is essential for the history of the Vesuvian area. The volcano is best known for the famous AD 79 eruption, which buried Pompeii and other Roman cities on the coast. In fact, the villa presented in this study was built on top of the volcanic deposits left by this event. Four centuries later, another volcanic event, the so-called “Pollena eruption” in AD 472, buried two thirds of what we believe are private baths.²² After a short period of reuse, the upper level of the structure was finally sealed by the following eruptions of AD 505 and 512.

Despite the unfortunate nature of these events for the people living around the volcano at the time, they provided us with unique *terminus post/ante quem*. However, in the past many scholars ignored evidence for the first eruption, claimed to have occurred in the 5th century AD, and assigned its impact to one (or possibly) two eruptions which took place at the beginning of the 6th century AD.²³ This opinion was forcefully criticised by De Simone, who stressed the need for a careful comparison of literary passages and the archaeological record. In fact, all three volcanic events were witnessed by ancient authors.²⁴ Analysing the literary sources, it becomes clear that the first eruption was a major volcanic event. The ashes from this eruption had fallen as far away as Constantinople; the annual parade was established to commemorate this incident. In fact, when writing about the successive outbreaks, all the authors make reference to the first eruption, which based on different sources occurred between AD 429 and 479, that is, still in the 5th century AD. It is Marcellinus Comes, who provides the most trustworthy dating for the AD 472 eruption, as he wrote his chronicles using the official archives in Constantinople. As stressed by De Simone, it is also a

²² DE SIMONE–PEROTTA–SCARPATI 2011, pp. 65–66; DE SIMONE–CASTALDO–SANNINO (*in press*); Scarpati–Perotta–De Simone 2016.

²³ DE SIMONE–CASTALDO–SANNINO (*in press*); DE SIMONE–PEROTTA–SCARPATI 2011, pp. 64–66.

²⁴ Marcellinus *Chron.* M.G.H., A.A. XI, pp. 90, 97; Procopius *Bell. Goth.* II, 4.76C; Cassiodorus *Var.* IV, 50; Pas. *Camp.*, M.G.H., A.A. IX, p. 330.

historical fact that Vesuvius has typically followed a pattern of repeated volcanic events, in the form of a major eruption followed by a series of smaller eruptions of a lesser magnitude.²⁵ So far, no sufficiently convincing evidence has been found to date our deposit later than AD 472. The earlier dating is also supported by the find of a bronze coin from the reign of Marcian (AD 450–457), which was found as a votive gift in a child burial and is the latest evidence of the use of the structure in Late Antiquity.²⁶ Furthermore, when analysing the pottery assemblage from the Roman baths, the material found under the thick volcanoclastic layer is very much consistent with what is witnessed in Naples in the phases before the end of the 5th century. The nature of our assemblage is significantly different from 6th century material in Naples, and in particular the ARS found at Carminiello, that a 6th century date for the finds from Pollena is extremely unlikely.²⁷

²⁵ DE SIMONE–CASTALDO–SANNINO (*in press*).

²⁶ DE SIMONE–PEROTTA–SCARPATI 2009, p. 55

²⁷ MARTUCCI–CASTALDO–DE SIMONE (*in press*).

Masseria De Carolis: Archaeological evidence

Architectonic remains

Archaeological remains at Masseria De Carolis belong to the private baths, which were clearly part of an unknown Roman villa, extending under the modern road and adjacent buildings (Figure 2). What was excavated from the villa itself (J–T) consists of several corridors, rooms and courtyards with traces of the rich original decoration. As this part of the site is still to be published, only general remarks will follow. Already in Late Antiquity, this part of the villa underwent spoliation. This is clearly visible, for example, on the southern wall of the most western room (J), as it was completely robbed of decoration. This kind of “open space” was connected to the thermal complex through an arched doorway in the western wall. Another opening in the form of arch is present on the eastern wall of this rather extensive room (7 x 5 m). This entrance connected the space to a small un-excavated apsidal room (K). Two other exits are found on the eastern wall and lead to other two partially excavated rooms (N, Q).²⁸ This area is the subject of extensive restoration works. To preserve the walls, collapsing under the pressure of the volcanic material, the vault and the wall in room N were secured by a “sarcophagus” hoarding followed by extensive scaffolding.²⁹ Although extensive spoliation activity occurred in this part of the villa, several walls preserve their original frescoes, which are now subject to ongoing restoration work. Furthermore, in one of the eastern rooms (P), a black-and-white mosaic floor with geometric decoration has been uncovered and preserved in situ. In the rubble, remains of other precious building material have been found, including numerous marble and glass *tesserae* or fragments of various kinds of marble plates. Some pieces of the original marble decoration have been preserved on the steps leading to the mosaic room.³⁰

²⁸ DE SIMONE 2009, pp. 154–155.

²⁹ SOU EK 2015, p. 8.

³⁰ SOU EK 2015, p. 10

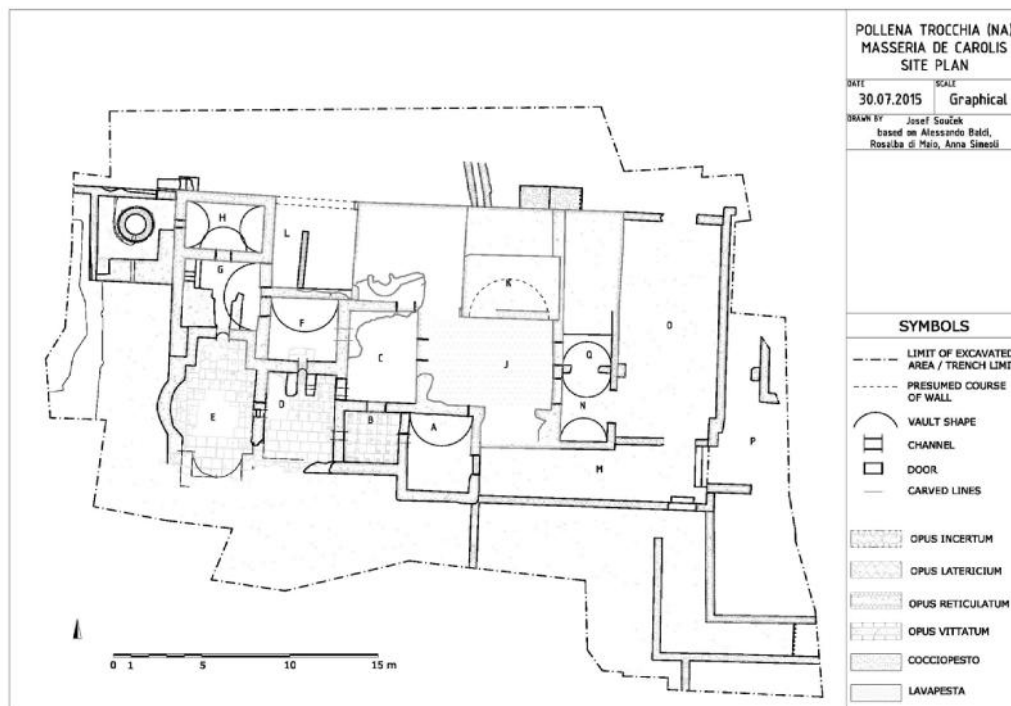


Figure 2 Masseria de Carolis. Site plan (author: J. Souček).

The bath complex, as excavated in 2015, is reconstructed according to the following plan: 5 rooms of the bath itself (A–E), two service rooms with praefurnia (F–G), one completely preserved vaulted room with cistern in the upper storey (H–H1), a room with well (W), an open room with service access (L), courtyard (J), apse (K) and a corridor currently composed of room N and Q. Entire complex was built on two different levels. The lower level supported the elevated floor of the heated bathrooms and the hypocaust, while the unheated rooms were founded on the upper level. The un-excavated area to the north from the apse is believed to consist of two rooms, based on the traces of the walls. Another un-excavated room lies next to cistern V, stretching north–south to the west of the room with well. This second underground cistern, an actual well, supplied cistern V through a small channel in its western wall.³¹ The rooms are oriented in an east-west direction and can be divided into three independent sectors: the water-supply system in the western corner,

³¹ SOUČEK 2015, p. 11.

service rooms facing north and the rooms of the bath to the south. Although they do not seem to be connected to each other, they were probably constructed at the same. According to their position, the service rooms probably played a role in supporting the rooms of the bath, so they would not slide down the hill.³²

At least five rooms can be identified as a part of thermal complex (A-E). They are built from bricks alternating with *opus incertum* panels. Oriented along an east-west axis, the rooms were thereby able to take full advantage of the sun's heat throughout the day. The first room (A) is the *frigidarium*, as it is the only room without a hypocaust under the cement floor. The *frigidarium* takes the form of large rectangle (4,30 x 3,50 m) and was originally housed by barrel vault, the traces of which are still present in the north-eastern corner. Through the narrow passage in the western wall, it was possible to enter the first heated room, the *laconicum* (B). The hypocaust uncovered in this almost squared room (2,80 x 3 m) still preserves 32 *suspensurae* bases and was connected to the *praefurnium* through the opening in the western wall (Figure 3). Facing the north, there was an entrance to another heated room, the *tepidarium* (C). The threshold of this doorway was blocked in the 5th century AD by a shallow wall. The room was the larger than previous bathrooms (5 x 4 m). Apart from the hypocaust, collapsed in its central part, the *tepidarium* preserves also some traces of piping, originally inserted into the walls as a part of the heating system. The south-western corner of this room created an entrance to another room of the bath of equal dimensions, this time equipped with hot water, the *caldarium* (D). In order to achieve a high temperature, this room had direct access to the *praefurnium* (F). The partially plundered hypocaust preserved some original pillars and traces of secondary damage caused by heavy machinery during the 1980s. A second *caldarium* (E) was identified to the west, based on the fact that it was again connected to its own *praefurnium* (G). It was hypothesised, that the so-called *schola labri* (pool with cold water), was originally placed in the western apse, while the *alveus* was situated along the northern wall. This room is of particular

³² SOU EK 2015, p. 42–43.

interest thanks to the stamps visible on the tiles of the hypocaust floor (see below).³³



Figure 3 *Laconicum*. Photogrammetric survey (author: J. Sou ek).

As mentioned before, behind the thermal complex, there are a series of service rooms (F–H). *Praefurnium* (G), which brought the heat to the *caldarium* (E), is a room of almost square form (4 x 3,5 m). The eastern wall of this room preserved two different doorways. The first served as an exit leading to the villa's exterior, while the other one connected the room to other the *praefurnium* (F). A significant part of this room is formed of a cooking platform, which was accessible by four steps situated in the

³³ SOU EK 2015, pp. 15–20; DE SIMONE 2009, pp. 153–154.

south-western corner. Part of the original barrel vault is preserved at the eastern and northern wall. Here, it is connected to another vaulted room (H), which survives to its full height (2,1 m). This rectangular service space (2,7 x 4,5) was probably used for fuel storage.³⁴ The *praefurnium* (F), accessed via the *caldarium* (D), is a room of almost square form (4,5 x 3 m). It was originally covered by a barrel vault, which was destroyed by heavy machinery in 1980s. Although it was plundered in Late Antiquity and heavily damaged for the second time in 1988, the northern wall was preserved to the considerable height of 4,5 m. The room preserved two hearths. The first one was placed by the eastern wall, while the second one was situated to the south and extended inside the *caldarium* (D).

Above the storage room, in the upper storey, were situated the first of several cisterns identified in the baths. Together with the underground cistern (V) on the ground floor, it was a part of a larger supply system which provided water for the private bath complex and in all probability also for the villa itself (Figure 4). The floor of this room (I) was coated with a layer of *cocciopesto*, the unique Roman water-proof technique. The water from the cistern was distributed through two wall openings which led to the *praefurnium* (G) and the villa's exterior. The underground cistern (V) was originally housed in room U, in the north-western part of the villa. At the beginning of the excavation, it was believed to be an actual well, but has, in fact, turned out to be another reservoir connected to the neighbouring (unexcavated) underground cistern by a channel.³⁵ The almost square structure is preserved up to its cylindrical top. At the height of 4,75 m., the vault is pierced by circular wellhead with a diameter of 4 Roman feet (1 184 m). At the bottom of the cistern there are two limestone blocks just far enough apart for a water-supply chain to fit in the cavity (Figure 5). As reconstructed by Sou ek, the water lifting device would fill most of the cistern (U) to supply the upper cistern (H) with a considerable

³⁴ SOU EK 2015, pp. 20–23; DE SIMONE 2009, pp. 154.

³⁵ SOU EK 2016, p. 25.

quantity of water (the estimated volume of preserved space exceeds already 25m³).³⁶

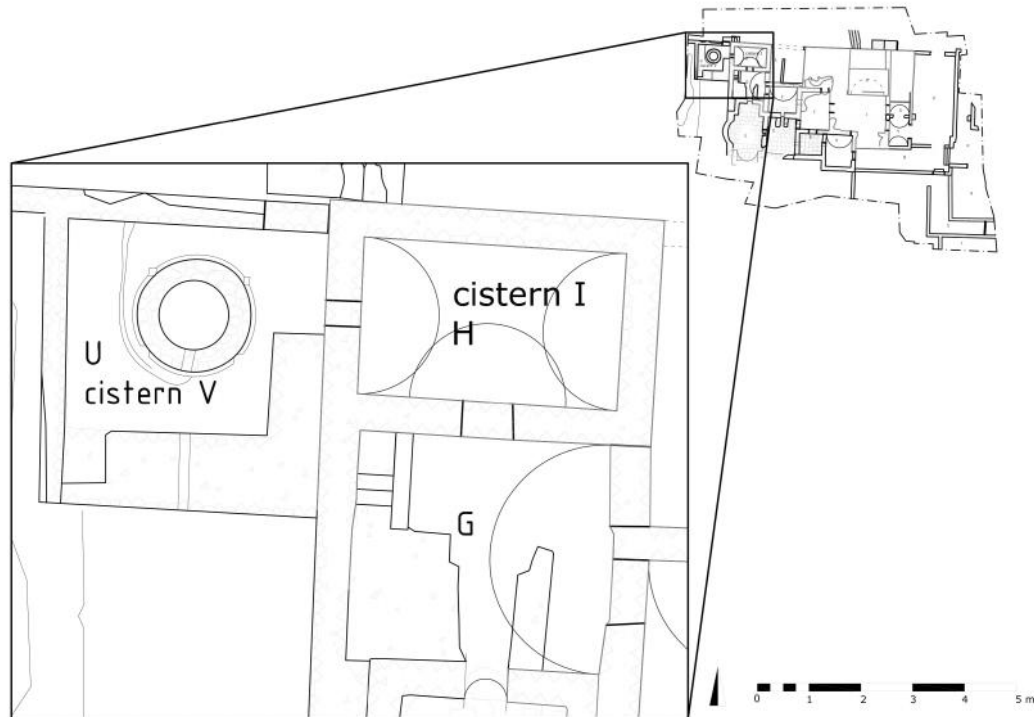


Figure 4 Plan of the water-supply system (author: J. Soušek).

Evolution of the site: stratigraphic evidence

As mentioned earlier, the current remains were built on top of the volcanoclastic debris of the famous AD 79 eruption. Excavating the volcanic layer under the wall foundations in the *praefurnium* (F) led to the uncovering of traces of previous occupation. Remains of building material together with transitional style stucco fragments confirmed the existence of an older villa, which stood either on the same place or somewhere near the baths.³⁷ Analysis of the building material from the baths shows a rather rapid re-occupation of the site. In fact, following the eruption, the whole Vesuvian area underwent a sort of recovery process. According to Soricelli, this initiative must have been finished by the first quarter of the

³⁶ SOUŠEK (*in press*), pp. 185–186.

³⁷ DE SIMONE–PEROTTA–SCARPATI 2011, p. 57.

2nd century AD.³⁸ This assumption is supported by the archaeological evidence from the villa. The stamp of a form of shallow horse shoe with the inscription ‘DVODOM’ is found on six tiles from the hypocaust floor in the *caldarium* (E). This evidence would date the foundation of the structure to the Flavian era or later.³⁹ After several hundred years of activity, the baths then fell into disuse. There is, however, no evidence which could provide a precise date for the whole abandonment process. The northern part of the building collapsed, probably after an earthquake, and its remains were accumulated along the walls in the northern area. Prior to the AD 472 eruption, but no later than AD 457, the complex was filled with domestic waste. These activities were accompanied by the spoliation of building material and the deposition of multiple burials. In total, there were at least 9 individuals buried in the excavated area, most of them infants. Finally, traces of a possible shift towards agricultural use of the area could be spotted in room M, where a new layer of *cocciopesto* was laid. According to Sou ek, the circular cuts and small holes in the floor might indicate the presence of an enclosure for small domestic animals or livestock.⁴⁰ This phase of occupation was suddenly interrupted by the so-called “Pollena eruption” in AD 472, which covered two thirds of the baths with volcanic material. The excavations of the volcanic profile in room N indicates that the site was left unoccupied for a relatively short period, due to the presence of a thin layer of soil created on the top of the volcanoclastic debris of the AD 472 eruption. The new inhabitants cleared the upper cistern (I) and coated the walls with a layer of *cocciopesto* containing the ashes of the recent eruption. A small kiln, which was built on top of the volcanic fill above the *tepidarium* (C), can be dated to the same period.⁴¹ This re-occupation phase was brought to an end by the subsequent eruptions of 505 and 512. Although a part of the eastern sector was still left uncovered, as witnessed by the later collapse

³⁸ SORICELLI 1997, pp. 142–145.

³⁹ SOU EK 2015, p. 9.

⁴⁰ SOU EK 2015, p. 10.

⁴¹ SOU EK 2015, pp. 10–11; DE SIMONE 2009, p. 155

of the upper floor in room *j*, the archaeological evidence shows no further traces of occupation after these two volcanic events.⁴²



Figure 5 Reconstruction of the water-lifting technology from the cistern *v* and photographic documentation of the architectonic evidence (author: J. Sou ek).

The ceramic assemblage from the baths

The study of pottery from the baths is possible thanks to several important publications from Late Antique Campania: these are especially useful for assessing the pottery typologies and chronology. By far the most significant is the catalogue of archaeological evidence from the *Carminiello ai Mannesi* complex in Naples from 1994.⁴³ The foundations of the Roman baths, excavated in the early 1980s by team of P. Arthur, are dated to the end of the 1st century AD but the structure itself witnessed extensive rebuilding activities over its lifetime. In the early medieval period the Roman building was enclosed within a later religious complex. Even three decades later, the excavation still remains the principal source of information on late Roman and early medieval pottery in the territory of *Neapolis*. In fact, it is one of the numerous sites which were discovered within the city following the earthquake in 1980. Since then, several other excavations followed in connection with the construction of the new metro

⁴² MARTUCCI *et al.* 2012, p. 88.

⁴³ ARTHUR 1994.

line. Amongst the other published reports, several publications are particularly noteworthy. These include the 2010 edition of the excavation at the *Teatro*,⁴⁴ with a comprehensive chapter on the pottery assemblage from late Roman contexts. Additionally, Vittoria Carsana has provided significant contributions on late local productions from several urban contexts, including as the harbour of Naples, Piazza Bovio or Piazza Municipio.⁴⁵ In the Campi Flegrei, late Roman pottery was found in the area of the ancient harbour at *Misenum*.⁴⁶ A further significant Late Antique dataset has been published from the Roman villa at Francolise, in the area where the production of colour-coated ware was identified (Massico territory).⁴⁷ Returning to South Campania, other assemblages were found in the territories of Nola and Acerra (*Suessula*).⁴⁸ In the area close to our villa, several excavations continue to provide us with important data on Campania in Late Antiquity. Moving beyond the AD 79 eruption, Soricelli has illustrated the changes that occurred in the Vesuvian area between the 2nd and 6th century AD, paying particular attention to state involvement in the rebuilding of the countryside.⁴⁹ In Pompeii, vast exhausts of Late Roman pottery were discovered on the site in Via Lepanto.⁵⁰ For the North Slope of Vesuvius, the only point of comparison comes from the so-called Villa of Augustus in Somma Vesuviana.⁵¹ The assemblage from Pollena as well as its counterpart from Somma are, however, dependent on the typology established by the excavation at Carminiello ai Mannesi. This causes several issues, but the most serious of these lies in distinguishing local variants from the Neapolitan forms and establishing their precise dating. In Pollena, many forms attested in the Carminiello typology can be dated earlier than would be suggested by the Neapolitan contexts (the second half of the 5th century

⁴⁴ CIAROCCHI *et al.* 2010.

⁴⁵ CARSANA – D’AMICO 2010; CARSANA – DEL VECCHIO 2010; CARSANA – GUIDUCCI 2010.

⁴⁶ SORICELLI 2000.

⁴⁷ COTTON 1979.

⁴⁸ CAMARDO–CARSANA–ROSSI 2003.

⁴⁹ Preceding Soricelli’s work, other important remarks were made by E. De Carolis. For more information see DE CAROLIS 1997 and SORICELLI 2001.

⁵⁰ DE CAROLIS–SORICELLI 2005; DE CAROLIS *et al* 2009.

⁵¹ MUKAI *et al.* 2010; MUKAI–SUGIYAMA–AOYAGI 2009.

and further), due to the presence of a sharp *terminus ante quem* (AD 472, see above).⁵²

The majority of the pottery assemblage from the baths is related to the period between the 4th to the 5th century AD., when the baths were already abandoned and used as a dumping area for the still-active residential part of the villa.⁵³ The earlier finds are far less well-represented and can in general be considered residual. However, some fragments, such as amphorae, were clearly part of the cement pavements.⁵⁴ The ceramic assemblage consists of a variety of classes and forms. Due to the presence of an important *terminus ante quem* provided by the volcanic deposit (3–5m thick volcanoclastic debris) of AD 472, and the large number of fragments recovered from the site (55 656 sherds, 10 129 MNI), the ceramic assemblage from the baths represents an indispensable dataset in research into the Late Roman economy in Campania.⁵⁵ The site lies along an important corridor between the Roman cities of *Neapolis* and Nola, where many other villas have also been identified. Thus, study of Roman pottery from our villa provides an important opportunity to shed light on regional and micro-regional trade networks in Late Antique Campania.

Most of the ceramics recovered in the baths (Figure 7) were produced in local workshops or in the wider region of Campania (80%). The rest was being imported from different parts of the Mediterranean basin (20%), particularly from North Africa, but also from the Italian island of Pantelleria, Spain and the Near East. According to their function, as indicated by their shape, the pottery assemblage can be further divided into cooking ware (49%), table ware (29%), storage containers (6,3%) and lamps (4,5%).

⁵² MARTUCCI *et al.* 2010, p. 90.

⁵³ This phenomenon is witnessed also at Carminiello ai Mannesi and other sites in Campania, see MARTUCCI *et al.* 2010.

⁵⁴ DE SIMONE–MARTUCCI 2016, p. 129.

⁵⁵ DE SIMONE–CASTALDO–SANNINO (*in press*).



Figure 6 Ceramic assemblage from the villa baths (source: Apolline Project).

Cooking ware

The cooking ware represents 49% of the total number of individuals (4949 MNI). This group consists of the following classes: African cooking ware, Pantellerian ware and local cooking ware, with the latter encompassing over 88% of all cooking vessels. It is an interesting fact that the imported pots are mostly residual. This situation is consistent with what we observe in Campania in the second half of the 5th century AD, which is a decrease of imports in favour of local products. However, it is still not clear whether the sudden fall in importation was caused by the sustainability of the local market or the lack of imported goods caused a higher demand for local products.⁵⁶

As stressed by Ikäheimo, Roman cooking wares were not commonly involved in long-distance trade - except African cooking ware, produced in the province of Africa Proconsularis from the early 1st to the late 5th century AD.⁵⁷ Among the African ceramics, a large proportion consists of early variants of casseroles (Hayes 196) with a bifid rim, followed by

⁵⁶ MARTUCCI-CASTALDO-DE SIMONE (*in press*).

⁵⁷ IKÄHEIMO 2005, p. 509.

dishes/lids (Hayes 197), both produced in North Tunisia from the 2nd to the 5th century AD.⁵⁸ A great number of fragments also belonged to a casserole (Hayes 23) from Eastern Tunisia, traded between the Flavian era and the end of the 4th century AD.⁵⁹ Elegant but strong vessels with thin walls with high cooking qualities had clearly inspired the local potters.⁶⁰ Thus, we can clearly see that many essential features of African cooking ware appear on local pots, such as thin walls and the almond-shaped rim of a late 5th century casserole (Carminiello 12) or the corrugated bases which provided greater resistance against thermal shocks.⁶¹ Furthermore, as shown by the evidence from Pollena, whole forms were often reproduced as part of the local cooking ware repertoire.⁶² Another type of cooking ware was imported from the island of Pantelleria, traded in the West Mediterranean between the 1st and the 5th century AD.⁶³ Pantellerian ware, both handmade and wheel thrown, is easily recognizable for its coarse non-calcareous fabric with abundant but well-sorted temper. This kind of pottery was fired at a low temperature which provided the product with high resistance to thermal shock.⁶⁴ In Pollena, the most represented form is a shallow casserole with rounded rim and flaring walls (Carminiello 112), a type attested in the Bay of Naples from the end of the 4th century AD.⁶⁵

Along with the phenomenon of imitations on the regional market in Late Roman period, local tradition also continued to flourish. The local cooking ware found in the baths is, on average, of good quality, with standardised shapes. It was wheel-thrown by professional potters, using well-compacted fabrics with a large quantity of inclusions.⁶⁶ In Pollena,

⁵⁸ BONIFAY 2004, p. 211, fig. 112, n. 1–4.

⁵⁹ BONIFAY 2004, p. 224, fig. 120, 1–10 (Hayes 197); p. 226, fig. 121, 1–8 (Hayes 196).

⁶⁰ CARSANA 1994, p. 254.

⁶¹ CARSANA 1994, p. 230–231, fig. 108–109.

⁶² DE SIMONE *et al.* 2015, p. 223, fig. 5, n. 2. For the other examples imitations see CARSANA–DEL VECCHIO 2010, p. 461; DE CAROLIS–SORICELLI 2005, p. 520, fig. 5, n. 1.

⁶³ CARSANA 1994, p. 253, fig. 121. For Naples, the Pantellerian ware seems to first occur in the 3rd century AD. For more information see CARSANA–DEL VECCHIO 2010, p. 462.

⁶⁴ GRIFA 2005, p. 69.

⁶⁵ CARSANA 1994, p. 252, fig. 121, p. 3, fig. 6, n. 31.

⁶⁶ MARTUCCI *et al.* 2014, p. 52.

the typology of this class consists of following forms: casseroles (34,8%), lids (27,3%), pots (8,9%), skillets (7,8%) and cooking dishes (5,9%). When examining the different shapes in chronological order, one can observe a shift in functional preference over the centuries, with the sudden spread of casseroles in the later period. As casseroles were most likely employed in the preparation of semi-liquid food from small pieces of meat and vegetables, we might suppose that in Late Antiquity the culinary habits shifted from broths and boiled food towards stews and “slow food.”⁶⁷

Among casseroles, the most common shape is the Carminiello 12, an imitation of the African casserole (Hayes 197), which was already discussed in the previous chapter. This type is followed by the casseroles (Carminiello 2–3) with convex walls, a thickened and inward folded rim, and an ear-shaped handle on or under the rim or on the body of the vessel.⁶⁸ These forms were produced in Naples from the middle of the 5th century AD, but similar forms are found elsewhere in the Western Mediterranean, while this shape is generally considered to have originated in Pantelleria.⁶⁹ Despite a growing demand for casseroles in Late Antiquity, several forms of the high-volume cooking vessels survived up to the 5th century AD. The pot with flanged rim and curved, corrugated walls has a long tradition in Italy. It played an important role in Campanian market during the 1st and the 2nd century AD, but it is also common in Late Roman contexts.⁷⁰ To this type can be added an *olla* (Carminiello 33) with two handles and a groove on the top of the rim, generally thought to have supported the pot’s lid.⁷¹ Unfortunately, the association of the lids to the corresponding vessels can be quite problematic when working with the assemblage from baths, as fragments of one vessel are commonly found across several different layers. Furthermore, as a part of the dumping activities during the later period,

⁶⁷ DE SIMONE *et al.* 2015, p. 226.

⁶⁸ MARTUCCI *et al.* 2014, p. 59, fig. 5, n. 2.

⁶⁹ DE SIMONE *et al.* 2015, p. 254.

⁷⁰ CARSANA–DEL VECCHIO 2010, p. 461, fig. 6, n. 21–25.

⁷¹ CARSANA–DEL VECCHIO 2010, p. 462, fig. 7, n. 35; CARSANA 1994, p. 237, fig. 112, n. 33.

some of the pots must have already been broken and incomplete when deposited in the bath complex. However, when it comes to pots with a grooved rim or casseroles with a bifid rim, the association with pointed lids is generally assumed. By the end of the 4th century AD at latest, local manufacturers were active in the micro-regional market with a product which appears to have been of pure Vesuvian origin. Among the assemblage from the Roman baths, it represents almost 6% of all local cooking ware (254 NMI). The so-called ‘bread cooking’ dish was hand-modelled from local clay with abundant volcanic inclusions from the environs of Vesuvius and multiple workshops (possibly households) seem to have been employed in its production.⁷² It is an important marker of micro-regional production, as it was found primarily on sites on both sides of the mountain.⁷³ Nevertheless, it was present among finds from a Roman villa on the outskirts of modern Nola, but it is absent in *Neapolis*.⁷⁴ Among finds from the Villa of Augustus in Somma Vesuviana, a fully preserved example of the dish shows a central hole which probably allowed for the evaporation of excessive water from the bread dough and could have been useful for extraction of the hot food from the dish.⁷⁵

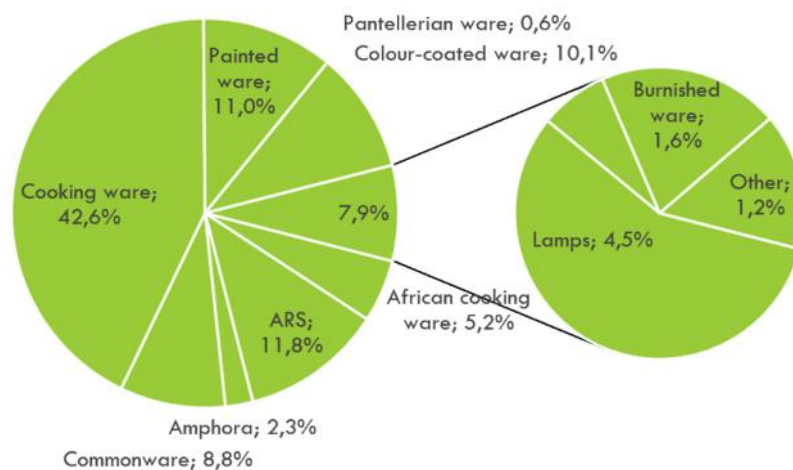


Figure 7 Pottery classes attested in the ceramic assemblage at baths: General overview.

⁷² MARTUCCI *et al.* 2014, pp. 54–55.

⁷³ PAGANO 1991, p. 183, fig. 36.

⁷⁴ MARTUCCI *et al.* 2014, p. 53.

⁷⁵ MARTUCCI *et al.* 2014, p. 53, fig. 7, n. 20.

Table ware

Table ware represents 29% of all pottery found in the villa (3 009 MNI), of which more than a third is imported. This group includes African red slip ware (ARS), *colour-coated ware*, painted ware and burnished ware.

The luxurious plates and bowls from North Tunisia played a significant role on the Late Roman market. In Pollena, the ARS assemblage consists of 1 166 specimens (11,5%). Only 124 rims, mostly made in D fabrics, can be dated to the final phase of the bath's occupation. Therefore, the majority of the fragments are likely to be residual material disturbed by spoliation activities and mixed into the dump. Among these individuals, all the standard shapes in circulation between the 1st and 3rd century AD are found, such as the variants of a dish (Hayes 3), carinated bowl (Hayes 8), a curved bowl (Hayes 9) or the other types of bowl (Hayes 14 and 17). The 5th century AD shapes include a large dish (Hayes 61), bowl with flanged rim (Hayes 91) and a shallow bowl (Hayes 80A). These late forms were also among the most frequently imitated shapes, produced in local wares. Although this kind of production is mostly dated to the 4th century AD, the practice is known in North Campania as early as the 2nd century AD.⁷⁶ When looking at general typology of the tableware from the second half of the 5th century, the rivalry of local producers can hardly be an explanation for the lower number of Tunisian imports during this period. The predominance of local pottery is clear (66%), but the local products do not compete with the shapes, and therefore the functions, of imported vessels. In fact, the most common form attested for the local table ware is bowl, used for semi-liquid or stewed food. On the other hand, a dish, the most common shape among the ARS, was used for serving meat and fish. Since dishes were less frequent in later period, this has given rise to the hypothesis that the local diet started to be more reliant on pulses and vegetables than had previously been the case.⁷⁷

⁷⁶ ARTHUR 1994, p. 218.

⁷⁷ DE SIMONE *et al.* 2015, p. 225.

Among the local table wares, more than 10% of all individuals were identified as belonging to colour-coated ware (1 001 MNI). This class of pottery is characterised by a thin slip on their surface, obtained by immersion of the vessels in a liquid solution of depurified clay (Figure 9). This technique was used both on closed and open shapes, among which the latter often imitated ARS forms.⁷⁸ The vessels coated with coloured slip were traded on a regional scale from the 3rd century AD, with multiple known centres of production in Northern Campania and unidentified workshop(s) in the Bay of Naples.⁷⁹ In Pollena, the colour-coated vessels are first attested after the middle of the 4th century AD. The majority of fragments is represented by open forms, such as a small curved bowl (Carminiello 52) or the basin (Carminiello 62/Cotton 20), characterised by inverted thickened rim.⁸⁰ There is also a consistent group of closed shapes, mostly small jugs and flagons. In many cases, the external surface of the colour-coated vessels presents rouletted decoration, as for example in the case of the previously mentioned bowl (Carminiello 52).

Painted ware began to emerge in the Vesuvian area from the end of the 4th century AD. Made of fine clay and decorated with broad painted stripes, these vessels were produced either locally or traded on a micro-regional scale up until the 7th century AD. The paint was applied with a brush or a cloth in a thin but irregular layer, frequently leaving drip marks on the surface.⁸¹ Similarly as the previous group, the painted ware consists of a large number of rims (10,7%, 1091 MNI). A typical shape is again a bowl (Carminiello 62), but also the basin (Carminiello 69), probably used for the preparation of liquid food.⁸² Among closed shapes of jugs or small amphorae, particularly noteworthy is a jug (Carminiello 94) with a moulded rim and ovoid body, a type common in the Bay of Naples from the middle of the 5th century AD.⁸³

⁷⁸ MARTUCCI–CASTALDO–DE SIMONE (in press).

⁷⁹ SORICELLI 2015, pp. 202–203.

⁸⁰ ARTHUR 1994, p. 190, fig. 85 (Carminiello 52); p. 193, fig. 87 (Carminiello 62).

⁸¹ SORICELLI 2015, p. 196.

⁸² ARTHUR 1994, p. 193, fig. 87 (Carminiello 62); p. 196–197, fig. 89–87 (Carminiello 67).

⁸³ ARTHUR 1994, p. 203, fig. 94; MUKAI *et al.* 2010a, p. 472, fig. 6, n. 29, MARTUCCI *et al.* 2014, p. 53, fig. 6, n. 12.

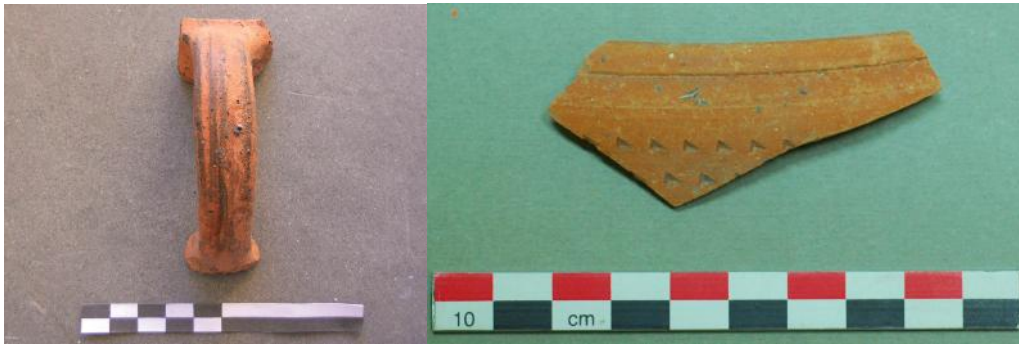


Figure 8 Fragments of pottery from the baths: Burnished and colour-coated ware (source: Apolline Project).

Burnished ware represents a small group of specimens (1,6%, 161 MNI) among the ceramic assemblage from the baths (Figure 8). Nevertheless, it is considered an important marker in micro-regional trade.⁸⁴ This class of pottery, easily recognisable for its exterior surface polished by a stick (Italian: *stecca*⁸⁵), is mostly represented by jugs and jars used for storing and serving liquids. In the Bay of Naples, the earliest varieties of this class of pottery emerge at the end of the 4th century.⁸⁶ Although P. Arthur⁸⁷ placed the centre of the production in Naples, no associated kiln for the production of this pottery class has yet been identified. In fact, archaeometrical analysis has demonstrated that at the end of the 5th century there must have been at least three different workshops involved in the production of this class.⁸⁸ The dataset from the baths is the largest so far presented for the entire region. It consists of several forms recognised as Neapolitan, such the Carminiello 142 jug with a straight neck or the Carminiello 145 jug with a flaring rim.⁸⁹ In both cases, variants found in Pollena can lower the dating of the forms attested in *Neapolis*, due to the presence of the sharp *terminus ante quem* provided by the volcanic eruption of AD 472. Other jugs can be attributed to the types

⁸⁴ MARTUCCI *et al.* 2014, p. 54.

⁸⁵ SAPORITO 1992, p. 202, note 21.

⁸⁶ BENKOVÁ (*in press*), MUKAI-SUGIYAMA-AOYAGI 2009; DE CAROLIS-SORICELLI 2005, p. 320, fig. 4.

⁸⁷ ARTHUR 1994, 217–220.

⁸⁸ MARTUCCI *et al.* 2014, pp. 55–56.

⁸⁹ BENKOVÁ (*in press*), fig. 2, n. 1–2, 8–9; ARTHUR 1994, p. 212, fig. 99.

found in Somma Vesuviana but not attested in the city, as for example the Mukai 13 jug.⁹⁰

Undecorated vessels (Italian: *ceramica acroma*) are mostly described as common wares. Since many of the fragments correspond to the typology of several other pottery classes, special attention is needed in order to distinguish a non-decorated fragment from the one where the decoration had worn off. This class of pottery is typically represented by high-volume shapes such as storage jars or basins involved in the preparation of food. However, there is still a considerable amount of non-decorated pottery which can be identified as table ware (257 NMI). The best attested shape is the thick-walled basin (Carminiello 75). This type of big vessel (the diameter generally varies between 25–40 cm) presents a massive flaring rim, while the walls are straight. Some fragments preserved a sort of hook on the inner lip, probably for straining the solid content. In Naples, numerous variants are attested from the end of the 5th century, however the original production of this form can be traced to Africa Proconsularis, where it was known from the 3rd century AD. In fact, at Carminiello ai Mannesi, 3 out of 10 vessels of this type are still identified as African imports dating to between the 5th and the 6th century AD.⁹¹ Among numerous jugs, again noteworthy is the Carminiello 94 form, typical of painted production (see above), but attested also in other local wares such as the burnished and the colour-coated ware.

Amphorae

Transport containers represent rather a small group (2,4%, 243 MNI) as a proportion of all the potsherds found in the baths. Since most of the sherds can be considered residual, they cover wide timespan. Among the residual fragments of the period from the 1st to the 4th century AD, the containers from Africa and Tripolitania clearly predominate.⁹² The earliest potsherds belonged to the Italian products, such as the Campanian wine

⁹⁰ BENKOVÁ (*in press*), fig. 2, n. 20; MUKAI–SUGIYAMA–AOYAGI 2009, p. 173

⁹¹ CARSANA 1994, p. 199.

⁹² DE SIMONE–MARTUCCI 2016, pp. 128–132.

amphora Dressel 1A, produced from the 2nd century BC onwards.⁹³ In the period following the eruption of AD 79, Tripolitanian amphorae are mostly attested down until the middle of the 2nd century AD, with types including primarily the Tripolitana I and African imitations of Dressel 2–4.⁹⁴ The successive period was dominated by Tunisian merchants: only the so-called small African amphora is found at the site, with a total of 22 specimens.⁹⁵ Among the Tripolitanian containers, there is still a considerable number of fragments, most of them belong to the Tripolitana II and the Tripolitana III.⁹⁶ The evidence of the 3rd and the 4th century AD consists mostly of proconsular amphorae, especially the Africana II and III types produced in *Byzacena* and *Zeugitana*.⁹⁷ African amphorae continue to be present also during the 5th century, which saw the presence of Keay XXVI or *Spatheon* II amphorae, but their number is much lower and even surpassed by other production centres.⁹⁸ Thus, we find several imports from the Eastern Mediterranean, such as the LRA4 from Gaza or the LRA1 of possible Cilician origin. 4 specimens of the latter were recovered, one of which was used for a child burial.⁹⁹ Along the imports from Levant, there are also several Iberian imports, such as Almagro 51C, or the Italian products, which included the Calabrian wine amphora Keay LII.¹⁰⁰ The assemblage from Pollena shows some similarities with published pottery groups from *Neapolis*, where most of the containers must have originated. In the city, the dominance of African productions is also clear, but it does not reach the high percentage present in Pollena (87%). The high quantity of imports and low number of local containers

⁹³ DE SIMONE–MARTUCCI 2016, p. 130, fig. 5, n. 1; PEACOCK–WILLIAMS 1986, p. 86.

⁹⁴ DE SIMONE–MARTUCCI 2016, p. 130, fig. 5, n. 4, 5–6; BONIFAY 2004, p. 104, fig. 55a;

⁹⁵ DE SIMONE–MARTUCCI 2016, p. 130, fig. 5, n. 7–15; BONIFAY 2004, p. 106, fig. 56.

⁹⁶ DE SIMONE–MARTUCCI 2016, p. 130, fig. 5, n. 16–21; BONIFAY 2004, p. 90, fig. 47; p. 104, fig. 55a.

⁹⁷ DE SIMONE–MARTUCCI 2016, p. 131, fig. 6, n. 27–36 (Africana II); p. 133, fig. 6, n. 41–45; fig. 7, n. 46–49 (Africana III); BONIFAY 2005, p. 108–121.

⁹⁸ DE SIMONE–MARTUCCI 2016, p. 133, fig. 7, n. 51–55, 57–59; BONIFAY 2004, p. 125, fig. 67, n. 30 (Keay XXVI), 31 (Spatheon II).

⁹⁹ KEAY 1984, pp. 268–278, fig. 117, n. 10 (LRA1); pp. 278–281, fig. 122, n. 7, 14 (LRA4).

¹⁰⁰ KEAY 1984, pp. 151, fig. 173 (Almagro 51C); DE SIMONE–MARTUCCI 2016, p. 133, fig. 7, n. 60–61; CASALINI 2014, 273 fig. 2, n. 4; ARTHUR 1989 fig. 1, n. 2 (Keay LII).

(3,6%) is not very consistent with what we see when looking at other pottery classes, where there is a prevalence of local goods. As most of the amphorae attested in the baths were containers for wine transport, this phenomenon could be explained by the existence of local producers (the so-called Villa of Augustus with its extensive wine cellar is only circa 10 km away), which used containers made from perishable materials such as barrels or wineskins.¹⁰¹

Lamps

Although the number of the lamp fragments is not that high compared to the other classes (4,4%, 448 MNI), it still presents the largest dataset currently available in Campania and the only one available in the Vesuvian area. The lamps found in the baths can be divided into two groups based on the place of production. The Italic lamps, which represent 79% of all individuals, were mostly produced in Lazio or Southern Italy. On the other hand, the African lamps produced in Tunisia are less attested, which could seem strange compared with data for the African amphorae. In fact, excluding residual fragments, the numbers change significantly, leaving the Italic products at 37,5% in the period between the 4th and the 5th century.¹⁰² The African products were rather short-lived, dating from the first quarter of the 4th to the final 5th century. African lamps from the baths can be attributed to the Atlante VIII and Atlante X forms, while the number slightly prevails in the first group. The Atlante VIII form has been found in many variants, such as early variant CIa with the Christian monogram CHI-RHO on the discus, or the later variant CIId with a square discus.¹⁰³ The Atlante X form comprises mostly the variant XAIa with shoulders with geometric decoration, produced from the end of the 4th century AD onwards. Another variant of this type is represented by the

¹⁰¹ DE SIMONE–MARTUCCI 2 016, pp. 132–133.

¹⁰² CASTALDO 2016, p. 58.

¹⁰³ CASTALDO 2014, p. 207, fig. 1., n.1; ATLANTE I 1981, pp.192-198 (Atlante VIIICla); CASTALDO 2014, p. 207, fig. 1., n.5–6; BONIFAY 2004, p. 367–369 (Atlante VIIICId).

variant XBIa with a relief of a fish on the discus.¹⁰⁴ Among the Italic products, the most common lamp type is decorated with warts (*globules*). Of 48 fragments, 38 can be attributed to the Dressel 30/Bailey R form, produced in Latium at the end of the 3rd century AD.¹⁰⁵ A great number of lamps are represented by so-called pseudo-Vogelkopflampen with rounded nozzles, produced in Italy at the end of the 2nd and the beginning of the 3rd century AD.¹⁰⁶ The Firmalampen, widely circulated in Campania until the 5th century AD, are less common in the baths and their state of preservation allows only limited comparison.¹⁰⁷

¹⁰⁴ CASTALDO 2014, pp. 209–210, fig. 1, n. 8–11 (Atlante XAIa); fig. 1, n. 12 (Atlante XBIa); ATLANTE I 1981, pp. 200–203.

¹⁰⁵ CASTALDO 2016, p. 54, fig. 1, n. 9–11; GARCEA 1999.

¹⁰⁶ CASTALDO 2016, p. 54, fig. 1, n. 4; PAVOLINI 1977, 64 fig. 16, n. 2.

¹⁰⁷ CASTALDO 2016, p. 54, fig. 1, n. 5–6; GARCEA 1994, 304–306 fig. 138, n. 15.

The contextual analysis of pottery from Roman Baths

This chapter is dedicated to the analysis of the ceramic assemblage from one of the rooms of the bath known as the *laconicum* (B) and the villas underground cistern (V). As described in the previous chapter, all rooms of the baths seem to have served the same purpose (dump and cemetery) during the third quarter of the 5th century AD. Despite being sealed by the same volcanoclastic debris, the water reservoir showed a rather different ratio of attested pottery classes when compared with the rest of baths. Thus, it is necessary to compare this new data with other contexts from the villa in order to understand whether the cistern's assemblage was related to the dumping activities which occurred in the villa baths prior to the AD 472 eruption, or is rather the result of (an)other event(s). For this purpose, I chose to compare it with the pottery recovered from the *laconicum*, as it covers all the ceramic productions attested in the villa with more or less representative ratio. At the same time, it represents a rather small dataset (281 NMI), which seems to be more statistically reliable than the less numerous assemblage from the cistern (46 NMI).

For each assemblage, there is a brief introduction where the quantitative analysis of attested pottery classes is provided. The individual classes are then described, passing from the most to the least attested. Where possible, each pottery class is subdivided into general shapes, among which the most represented types are characterised in greater detail.

For each fragment presented in this study, an inventory number has been assigned and a registered find (RF) card has been created, placed at the bottom of the overall description of each assemblage. The RF card consists of the catalogue and inventory number, a description of the shape and other qualitative data. When possible, the dating and the geographical indications of the place of production are provided. Furthermore, each individual has been drawn and digitalised. As it would not affect the results of this research, I decided not to include the details on the individual fabrics. Since the assemblage from the *laconicum* has been studied in 2008 and this data has not been provided for each individual at the time, re-examination would only further delay the preparation of this thesis.

Laconicum

Room B has been interpreted as laconicum because of its square shape and the presence of the hypocaust, from which a great number of original *suspensurae* were preserved in situ. As is the case for many other rooms on the southern edge of the site, it was affected by the works which took place in 1988. In the *laconicum* this activity removed just the upper portion of the volcanoclastic debris of the AD 472 eruption, while the anthropic context remained untouched. The context below the volcanoclastic layer was a silty sand, filled with rubble and clear traces of fire, often in association with charcoal remains. In the lower part of the context the sizeable rubble chunks were mostly deposited in the corners, but in the upper part they appeared to have accumulated largely in the centre. All contexts showed a certain horizontality and seem to be the result of intentional anthropic accumulations. Four child burials were found in this room, three in the south-eastern corner of the room and one in the south-western corner.¹⁰⁸

Pottery assemblage from the *laconicum*

The assemblage from the *laconicum* is generally consistent with the pattern from rest of the site (Figure 9). From a total of 1 394 potsherds, it was possible to identify 281 rims. Most of the specimens represent the local productions, but there is still a fair amount of imports (11%). In the *laconicum*, we find all the imported classes from the villa. The best attested is ARS (15 NMI) followed by Pantellerian ware (7 NMI), *amphorae* (7 NMI), African cooking ware (2 NMI) and a single fragment of African lamp. The best attested class across the whole site, local cooking ware, represents 67% of the whole ceramic assemblage from the *laconicum* (189 NMI). Other local and regional products are represented by slipped ware (30 NMI) followed by common wares (15 NMI) and burnished ware (8 NMI). The remaining pottery fragments were equally divided between Italic lamps, *dolia* and painted ware, with each attested by 2

¹⁰⁸ DE SIMONE–CASTALDO–SANNINO (*in press*).

individuals.

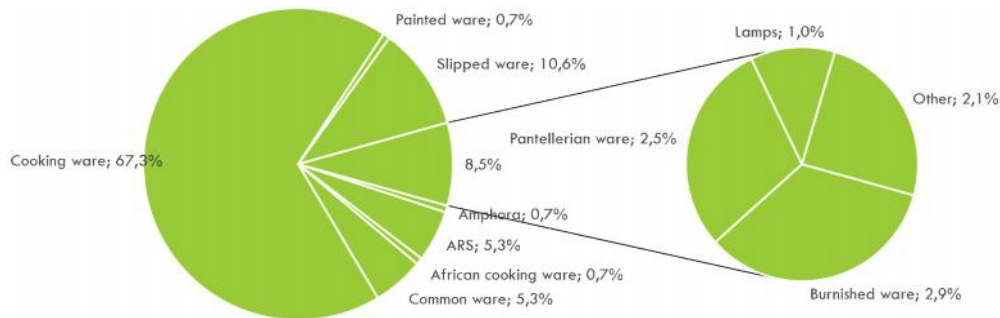


Figure 9 Pottery assemblage attested in *laconicum*.

Cooking ware

The local production of cooking vessels represents 67% of the ceramic assemblage from the *laconicum* (189 NMI). Analysed samples present a coarse fabric with an abundance of volcanic inclusions typical of Vesuvius, alongside a limestone temper combined with scattered inclusions of quartz. From the various shapes, the most commonly attested is the casserole (69 NMI). A noteworthy number of specimens can be attributed to the Carminiello 2 type with a rounded and inward-folded rim, flaring walls and semi-circular handles (1–5). As discussed in the previous chapter, this type of casserole was common in Late Antique Campania. Imitating the Pantellerian original, these vessels were produced in Naples from the middle of the 5th century AD onwards, but similar forms are found elsewhere in the Western Mediterranean.¹⁰⁹ Another casserole was found with inward-folded and flattened rim of triangular profile (6). This form corresponds to a casserole (Carminiello 3) and is very similar to the previous type; however, it differs in the execution of the rim and the generally rougher finish. The two forms are usually attested alongside one another in the archaeological record, although the presence of the latter is still quite high in the first half of the 7th century AD, while the first casserole seems to have largely disappeared by the end of the 6th century

¹⁰⁹ CARSANA 1994, pp. 223–224, fig. 103, n. 2; CARSANA 2009, p. 678, fig. 7, n. 1–2; MARTUCCI *et al.* 2014, p. 59, fig. 5, n. 2; DE SIMONE *et al.* 2015, p. 254, DE SIMONE–CASTALDO–SANNINO (*in press*); MUKAI–SUGIYAMA–AOYAGI 2009, p. 4, fig. 9, n. 47.

AD.¹¹⁰ The second most attested cooking shape in the *laconicum* is the lid (41 NMI). Due to a discrepancy in the published evidence, the identification of these objects is problematic. However, the most represented forms correspond to the Neapolitan repertoire. The first is the Carminiello 75 type, which is represented by two variants of a lid with rounded rim (7–8). The first variant is quite simple with a slight distinction between the rim and the wall, while the second variant presents a notably thickened rim with a triangular profile. At Carminiello ai Mannesi, both lids are dated to the end of the 5th and the beginning of the 6th century AD, with the latter being a later variant.¹¹¹ However at the Roman theatre, the first variant seems to have survived up until the 7th century AD.¹¹² Another lid of local origin corresponds to the Carminiello 78 type with a thickened rim (9), which is a clear imitation of the late variants of the African dish-lid (Hayes 196).¹¹³ In this case it must have been used only as a lid, judging by the rather straight walls and rough inner surface. This form is well-represented in the Vesuvian area after the second half of the 5th century AD.¹¹⁴ In Naples, this type is found at Carminiello ai Mannesi in the third quarter of the 5th century AD. As shown by the evidence from the Roman theatre, its production seems to cease after the beginning of the following century.¹¹⁵ Similar to this production is a lid with a sort of hooked rim, which is clearly distinguished from the wall (10). The exact lid is found at Somma Vesuviana in a context dated from the end of the 4th to the beginning of the 5th century AD. In this case, it has also preserved the knobbed handle.¹¹⁶ The *Laconicum* preserved a considerable number of the local bread-cooking dishes (40 NMI). As discussed in the previous chapter, this locally produced vessel was traded on a microregional level during the 5th

¹¹⁰ MUKAI-SUGIYAMA-AOYAGI 2009, p. 4, fig. 9, n. 51; CARSANA 1994, p. 226, fig. 105, n. 3; CARSANA 2009, p. 678, fig. 7, n. 3; MARTUCCI *et al.* 2014, p. 59.

¹¹¹ CARSANA 1994, 244–245, fig. 116, n. 75.1–2.

¹¹² CIAROCCHI *et al.* 2010, 127, fig. 65, n. 19.

¹¹³ BONIFAY 2004, p. 228, fig. 118, n. 9.

¹¹⁴ MUKAI-SUGIYAMA-AOYAGI 2009, p. 4, fig. 9, n. 46; DE CAROLIS *et al.* 2009, p. 660, fig. 6, n. 4.

¹¹⁵ CARSANA 1994, 244–245, fig. 116, n. 78; CIAROCCHI *et al.* 2010, 127, fig. 65, n. 20.

¹¹⁶ MUKAI-SUGIYAMA-AOYAGI 2009, p. 2, fig. 5, n. 28.

century AD. The majority of this group can be attributed to the early variant identified at the Villa in Somma and dated between the end of the 4th and the beginning of the 5th century AD (11–12).¹¹⁷ The repertoire of the same type is represented in the so-called Villa Sora near Frascati in the contexts generally referred to as Late Roman.¹¹⁸ Among the cooking pots (20 NMI), the most attested are *ollae* with an elevated rim. The first is an *olla* (Carminiello 52) with a plain flaring rim and ovoid body, blackened on the outside (13). This kind of cooking pot is commonly found in Naples between the middle of the 5th and the middle of the 7th century AD.¹¹⁹ The Carminiello 48 type differs from the previous type because of the absence of the neck and a rim slightly flattened on the inside in order to support a lid (14). At the Roman theatre in Naples, it is attested during the third quarter of the 5th century AD, while at Carminiello ai Mannesi it continues to appear in various contexts up to the first half of the 6th century AD.¹²⁰ The last group discussed here are skillets, which are represented in a small number of specimens (6 NMI). The best preserved is the Carminiello 92.1 type with a slightly pointed rim and burnished interior which resemble the anti-stick treatment of today's frying pans (15). This skillet, of unclear imported origin, is present among the Neapolitan assemblage belonging to the middle of the 5th century AD.¹²¹

1 – 0079.0002

Class: cooking ware

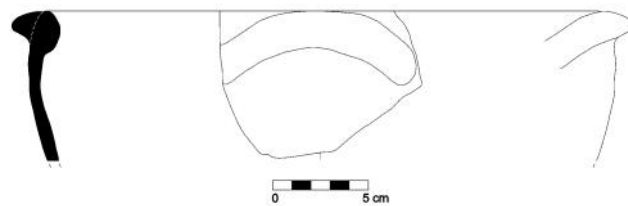
Form: casserole

Type: Carminiello 2

Production: local

Chronology: 400–699 AD

Dimensions: d. 29 - h. 7,8 cm



Casserole with rounded and inward-folded rim, flaring walls and semi-circular handles.

¹¹⁷ MUKAI-SUGIYAMA-AOYAGI 2009, p. 2, fig. 6, n. 35.

¹¹⁸ Based on the presence of the imported products, the context could be roughly dated between the end of the 4th and the 6th century AD. PAGANO 1991, p. 183, fig. 36, A–E.

¹¹⁹ CARSANA 1994, p. 240, fig. 114, n. 52.

¹²⁰ CARSANA 1994, p. 240, fig. 114, n. 48, CIAROCCHI *et al.* 2010, p. 126, fig. 65, n. 9.

¹²¹ CARSANA 1994, p. 247, fig. 118, n. 92.1, CIAROCCHI *et al.* 2010, p. 124, fig. 64, n. 2.

Bibliography: CARSANA 1994, pp. 223–224, fig. 103, n. 2; CARSANA 2009, p. 678, fig. 7, n. 1–2; MARTUCCI *et al.* 2014, p. 59, fig. 5, n. 2; DE SIMONE *et al.* 2015, p. 254, DE SIMONE–CASTALDO–SANNINO (*in press*); MUKAI–SUGIYAMA–AOYAGI 2009, p. 4, fig. 9, n. 47.

2 – 0082.0010

Class: cooking ware

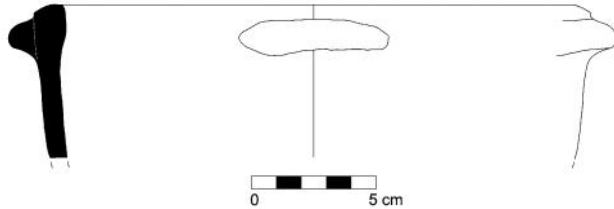
Form: casserole

Type: Carminiello 2

Production: local

Chronology: 500–699 AD

Dimensions: d. 20,2 - h. 6,3 cm



Casserole with straight handles and thickened rim, slightly flattened on the outside.

Bibliography: CARSANA 1994, pp. 223–224, fig. 103, n. 2; CARSANA 2009, p. 678, fig. 7, n. 1–2; MARTUCCI *et al.* 2014, p. 59, fig. 5, n. 2; DE SIMONE *et al.* 2015, p. 254; DE SIMONE–CASTALDO–SANNINO (*in press*); MUKAI–SUGIYAMA–AOYAGI 2009, p. 4, fig. 9, n. 47.

3 – 0082.0001

Class: cooking ware

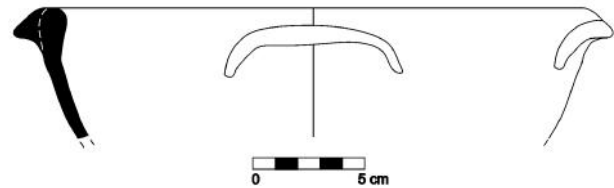
Form: casserole

Type: Carminiello 2.3

Production: local

Chronology: 440–460 AD

Dimensions: d. 23 - h. 5,8 cm



Casserole with rounded and inward-folded rim, flaring walls and ear-shaped handles.

Bibliography: CARSANA 1994, pp. 223–224, fig. 103, n. 2.3.

4 – 0082.0016

Class: cooking ware

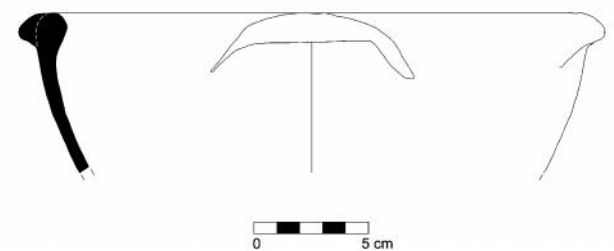
Form: casserole

Type: Carminiello 2.9

Production: local

Chronology: 500–535 AD

Dimensions: d. 20,2 - h. 6,3 cm



Casserole with ear-shaped handles and thickened and inward-folded rim, slightly flattened on the outside.

Bibliography: CARSANA 1994, pp. 223–224, fig. 103, n. 2.9.

5 – 0098.0001

Class: cooking ware

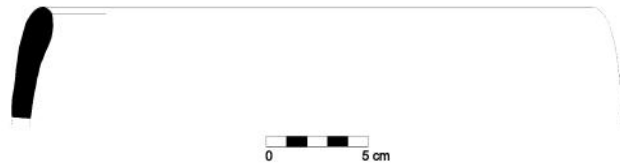
Form: casserole

Type: Carminiello 2.14

Production: local

Chronology: 500–535 AD

Dimensions: d. 27 - h. 5,4 cm



Casserole with slightly thickened and inward-folded rim, flattened on the inside.

Bibliography: CARSANA 1994, pp. 223–224, fig. 103, n. 2.14.

6 – 0082.0015

Class: cooking ware

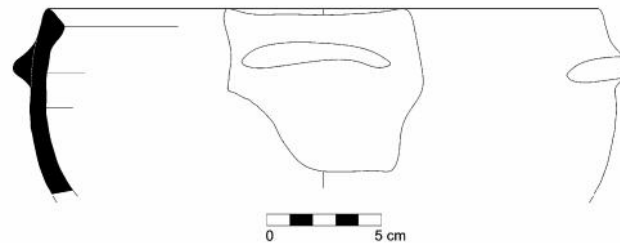
Form: casserole

Type: Carminiello 3.2

Production: local

Chronology: 500–535 AD

Dimensions: d. 24 - h. 8,1 cm



Casserole with semi-circular handles and inward-folded flattened rim of triangular profile.

Bibliography: CARSANA 1994, p. 226, fig. 105, n. 3.2.

7 – 0082.0005

Class: cooking ware

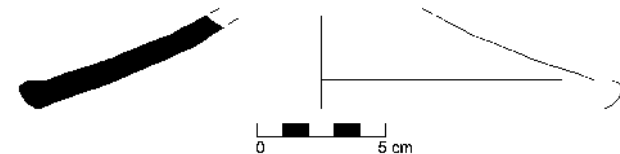
Form: lid

Type: Carminiello 75.1

Production: local

Chronology: 500–535 AD

Dimensions: d. 22 - h. 3,5 cm



Lid with slightly thickened and rounded rim.

Bibliography: CARSANA 1994, 244–245, fig. 116, n. 75.1; CIAROCCHI *et al.* 2010, 127, fig. 65, n. 19.

8 – 0079.0006

Class: cooking ware

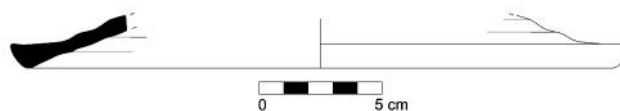
Form: lid

Type: Carminiello 75.2

Production: local

Chronology: 500–535 AD

Dimensions: d. 24 - h. 2 cm



Lid with thickened rim and corrugated wall.

Bibliography: CARSANA 1994, 244–245, fig. 116, n. 75.2.

9 – 0098.0013

Class: cooking ware

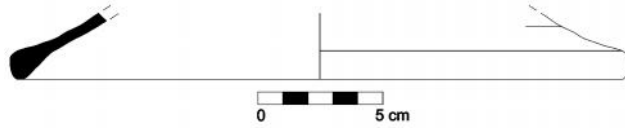
Form: lid

Type: Carminiello 78

Production: local

Chronology: 440–460 AD

Dimensions: d. 24 - h. 2,6 cm



Lid with thickened rim of triangular profile.

Bibliography: CARSANA 1994, 244–245, fig. 116, n. 78.

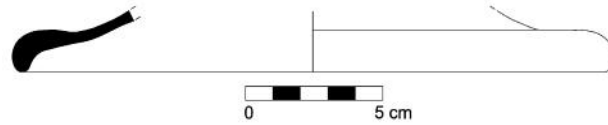
10 – 0116.0011

Class: cooking ware

Form: lid

Production: local

Dimensions: d. 21,2 - h. 2,2 cm



Lid with thickened and inward folded rim.

11 – 0093.0018

Class: cooking ware

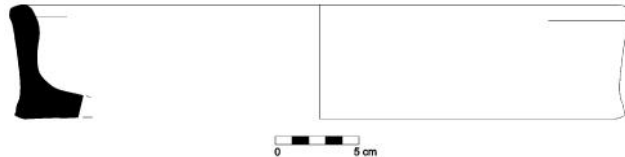
Form: bread-cooking dish

Type: Mukai 35

Production: Vesuvian

Chronology: 370–430 AD

Dimensions: d. 35 - h. 6,8 cm



Hand-modelled bread-cooking dish with thickened and rounded rim and flat base.

Bibliography: MUKAI–SUGIYAMA–AOYAGI 2009, p. 2, fig. 5, n. 28; PAGANO 1991, p. 183, fig. 36, A–E.

12 – 0098.0007

Class: cooking ware

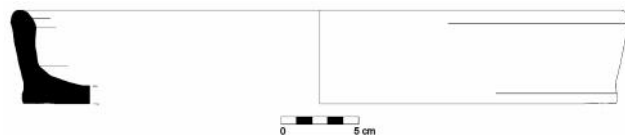
Form: bread-cooking dish

Type: Mukai 35

Production: Vesuvian

Chronology: 370–430 AD

Dimensions: d. 38,6 - h. 5,8 cm



Hand-modelled bread-cooking dish with thickened and rounded rim and flat base.

Bibliography: MUKAI-SUGIYAMA-AOYAGI 2009, p. 2, fig. 5, n. 28; PAGANO 1991, p. 183, fig. 36, A-E.

13 – 0084.0006

Class: cooking ware

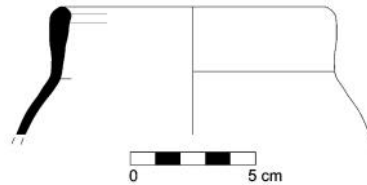
Form: *olla*

Type: Carminiello 52.2

Production: local

Chronology: 470–530 AD

Dimensions: d. 11 - h. 5 cm



Olla with plain flaring rim and ovoid body.

Bibliography: CARSANA 1994, p. 240, fig. 114, n. 52.

14 – 0082.0011

Class: cooking ware

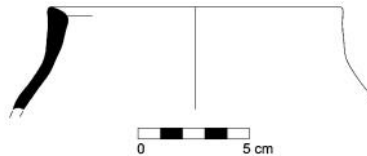
Form: *olla*

Type: Carminiello 48.3

Production: local

Chronology: 500–535 AD

Dimensions: d. 24 - h. 2,6 cm



Olla with thickened rim of triangular profile.

Bibliography: CARSANA 1994, p. 240, fig. 114, n. 48; CIAROCCHI *et al.* 2010, p. 126, fig. 65, n. 9.

15 – 0098.0012

Class: cooking ware

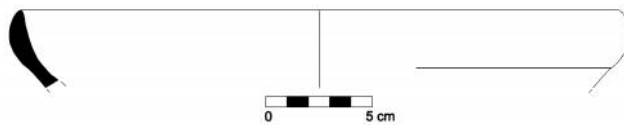
Form: skillet

Type: Carminiello 92.1

Production: local

Chronology: 440–460 AD

Dimensions: d. 24 - h. 2,6 cm

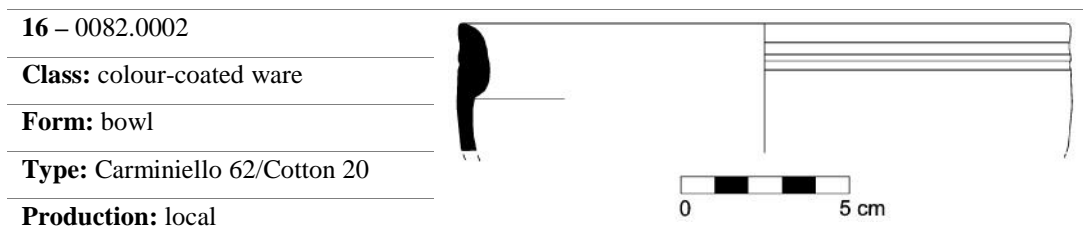


Skillet with thickened rim of quarter-round profile and flaring walls.

Bibliography: CARSANA 1994, p. 247, fig. 118, n. 92.1; CIAROCCHI *et al.* 2010, p. 124, fig. 64, n. 2.

Colour-coated ware

The second most attested pottery class from the *laconicum* is the slipped ware (30 NMI), among which the majority consists of bowls. The most common type, represented by 13 specimens, is a bowl (Carminiello 62/Cotton 20) with a thickened, inward-folded rim and shallow grooves on the exterior of the body (16–17). This bowl was produced in the *Ager Falernus*, but during Late Antiquity it was widely circulated throughout the whole region.¹²² Based on the typological analysis, this form can be dated from the late 4th to the 5th century AD. From the two variants presented here, the second differs only by more convex walls. Among the small bowls, there is an interesting sample with incised decoration on external wall (18). The thickened and inward-folded rim can be attributed to the Carminiello 60 form. This kind of bowl is attested in Naples from the end of the 5th century, but its production peaks in the first third of the 6th century, as is demonstrated by evidence from Carminiello ai Mannesi.¹²³ The closed shapes, which were less attested among the assemblage, harvested two fragments of a jug with a thickened rim and a wide but short neck (19–20). These jugs represent one of the most common types circulating in the Bay of Naples between the middle of the 5th and the 7th century AD.¹²⁴ The first variant with a rounded rim is particularly attested at Carminiello ai Mannesi in various contexts of the 6th century AD, while the latter jug with a double-moulded rim finds an exact parallel among the 5th century assemblage from Via Lepanto in Pompeii.¹²⁵



¹²² CARSANA 1994, pp. 191, 193, fig. 87, n. 62; CIAROCCHI *et al.* 2010, p. 119, fig. 60, n. 2–3; COTTON 1979, pp. 184–185, fig. 60, n. 20–26; AOYAGI–MUKAI–SUGIYAMA 2007, p. 448, Fig. 6, n. 43; MUKAI–SUGIYAMA–AOYAGI 2009, p. 2, fig. 7, n. 6.

¹²³ CARSANA 1994, p. 191, fig. 86, n. 60.4; CIAROCCHI *et al.* 2010, p. 119, fig. 60, n. 8.

¹²⁴ ARTHUR 1994, p. 203, fig. 95, n. 94; CIAROCCHI *et al.* 2010, p. 119, fig. 60, n. 16–17.

¹²⁵ ARTHUR 1994, p. 203, fig. 95, n. 94.9; DE CAROLIS–SORICELLI 2005, p. 519, fig. 4, n. 6.

Chronology: 370–499 AD

Dimensions: d. 27 - h. 5,2 cm

Bowl with thickened and inward-folded rim and shallow grooves on the outside.

Bibliography: CARSANA 1994, pp. 191, 193, fig. 87, n. 62; CIAROCCHI *et al.* 2010, p. 119, fig. 60, n. 2–3; COTTON 1979, pp. 184–185, fig. 60, n. 20–26; AOYAGI–MUKAI–SUGIYAMA 2007, p. 448, Fig. 6, n. 43; MUKAI–SUGIYAMA–AOYAGI 2009, p. 2, fig. 7, n. 6.

17 – 0084.0007

Class: colour-coated ware

Form: bowl

Type: Carminiello 62/Cotton 20

Production: local

Chronology: 370–499 AD

Dimensions: d. 30,4 - h. 5,7 cm

Bowl with thickened rim and flaring walls.

Bibliography: CARSANA 1994, pp. 191, 193, fig. 87, n. 62; CIAROCCHI *et al.* 2010, p. 119, fig. 60, n. 2–3; COTTON 1979, pp. 184–185, fig. 60, n. 20–26; AOYAGI–MUKAI–SUGIYAMA 2007, p. 448, Fig. 6, n. 43; MUKAI–SUGIYAMA–AOYAGI 2009, p. 2, fig. 7, n. 6.

18 – 0098.0006

Class: colour-coated ware

Form: bowl

Type: similar to Carminiello 60.4

Production: local

Chronology: 570–630 AD

Dimensions: d. 30,4 - h. 5,7 cm

Small bowl with thickened and inward-folded rim and an incised decoration on outside wall.

Bibliography: CARSANA 1994, p. 191, fig. 86, n. 60.4; CIAROCCHI *et al.* 2010, p. 119, fig. 60, n. 8.

19 – 0098.0019

Class: colour-coated ware

Form: jug

Type: Carminiello 94.9

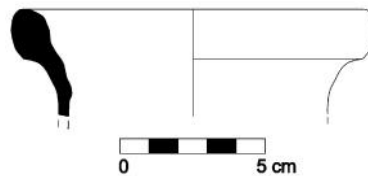
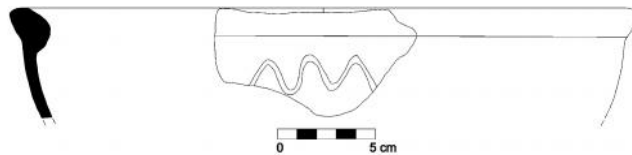
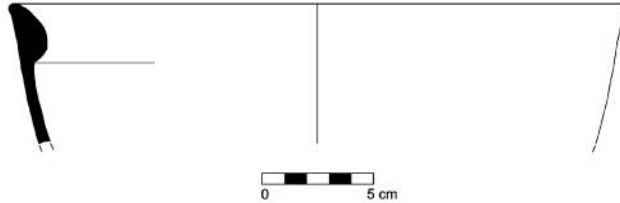
Production: local

Chronology: 470–535 AD

Dimensions: d. 11,6 - h. 3,7 cm

Jug with wide neck and slightly flaring thickened rim of round profile.

Bibliography: ARTHUR 1994, p. 203, fig. 95, n. 94.9.



20 – 0093.0009

Class: colour-coated ware

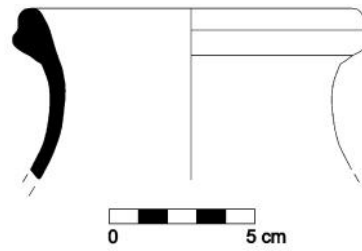
Form: jug

Type: Carminiello 94

Production: local

Chronology: 400–472 AD

Dimensions: d. 11 - h. 5,9 cm



Jug with wide concave neck and thickened rim with profiled external face.

Bibliography: ARTHUR 1994, p. 203, fig. 95, n. 94; DE CAROLIS–SORICELLI 2005, p. 519, fig. 4, n. 6.

African Red Slip ware

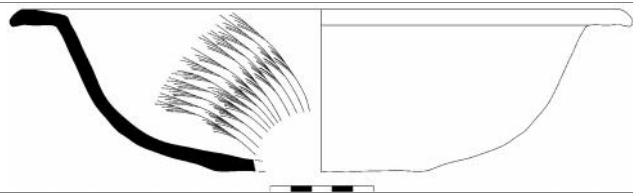
The bowls and dishes produced in Northern and Central Tunisia represent 5% of the ceramic assemblage from the *laconicum*. Among the ARS recovered in this room, particularly noteworthy is the complete profile of the bowl with a flanged rim and flaring walls made in D fabric (21). The shape is similar to the Hayes 78 form produced between the end of the 4th to the end of the 5th century AD, though it is worth noting that its diameter is almost double that of other published vessels.¹²⁶ The bowl preserves two concentric bands of rouletted decoration on the internal surface. To the same production can be attributed a large dish (Hayes 61), which was attested by 3 specimens. The type presented here corresponds to variant B, with a triangular, slightly incurved rim (22), dated between the end of the 4th and the middle of the 5th century AD.¹²⁷ Production C is represented with the large dish Hayes 50A (23). The plain rim with high, straight wall can be attributed to variant A, produced from the first half of the 3rd to the first quarter of the 4th century AD.¹²⁸

21 – 0098.0014

Class: ARS

Form: bowl

Type: similar to Hayes 78



¹²⁶ ATLANTE I, p. 108, fig. L, n. 5.

¹²⁷ ATLANTE I, p. 83, fig. XXXIV, n. 5.

¹²⁸ ATLANTE I, p. 65.

Production: Tunisia

Chronology: 370–500 AD

Dimensions: d. 29 - h. 7,9 cm

Small bowl with thickened and inward-folded rim and an incised decoration on outside wall.

Bibliography: ATLANTE I, p. 108, fig. L, n. 5.

22 – 0113.0005

Class: ARS

Form: dish

Type: Hayes 61

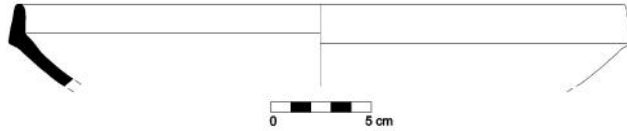
Production: Tunisia

Chronology: 370–460 AD

Dimensions: d. 30 - h. 4 cm

Small bowl with thickened and inward-folded rim and an incised decoration on the outside wall.

Bibliography: ATLANTE I, p. 83, fig. XXXIV, n. 5.



23 – 0119.0001

Class: ARS

Form: dish

Type: Hayes 50A/Lamboglia 40bis

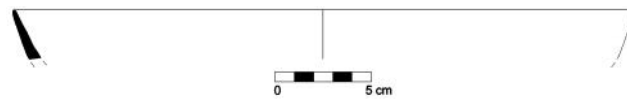
Production: Tunisia

Chronology: 240–325 AD

Dimensions: d. 31 - h. 2,5 cm

Large dish with plain everted rim.

Bibliography: ATLANTE I, p. 65.



Common ware

A considerable part of the ceramic assemblage from the *laconicum* is represented by locally produced pottery with no visible decoration (15 NMI). This common ware is attested in both closed and open shapes, both represented with a range of forms. Among the first group, there are multiple small fragments generally described as jugs. Particularly noteworthy is the rim of a household amphora with thickened and rounded rim (24), which cannot be attributed to a particular type, but its form generally corresponds to the overall trend of large containers with thickened rim which circulated in Late Antique Campania.¹²⁹ The

¹²⁹ ARTHUR 1994, p. 202; LUBRANO 2012, p. 231; CIAROCCHI *et al.* 2010, p. 119, fig. 60.

second group consists of small bowls attested in the Bay of Naples between the 5th and the 7th century AD. Among others there is a good fragment of a bowl (Carminiello 57), dated to the middle of the 5th century AD (25).¹³⁰

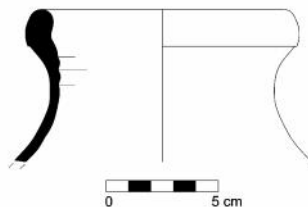
24 – 0113.0002

Class: common ware

Form: jug

Production: local

Dimensions: d. 11 - h. 6,8 cm



Jug with thickened and inward-folded rim and concave neck.

25 – 0093.0017

Class: common ware

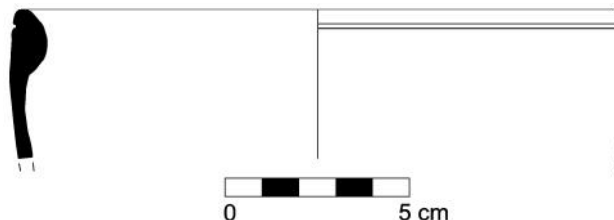
Form: bowl

Type: Carminiello 57

Production: local

Chronology: 440–460 AD

Dimensions: d. 16 - h. 4 cm



Small bowl with thickened and inward-folded rim, grooved on the outside.

Bibliography: ARTHUR 1994, p. 192, fig. 86, n. 57.1.

Burnished ware

Burnished ware represents 2,8% of the pottery assemblage from the *laconicum*. (8 NMI), while all the fragments are defined as closed shapes. Two specimens can be attributed to a jug (Carminiello 142). This jug with a flattened rim (26) represents the most common type of burnished ware attested at Neapolitan sites, where it appears from the end of the 5th century AD.¹³¹ Another specimen is represented by a jug or mug with a thick handle attached to the rounded rim, which is flattened on the inside (27). Made in a relatively coarse light red clay of type A, this vessel is characterised by a hard, compact external surface burnished in dark grey stripes, and with a greyish core (7.5 YR 3/1). The jug perhaps derives from the Neapolitan variant attested

¹³⁰ ARTHUR 1994, p. 192, fig. 86, n. 57.1.

¹³¹ ARTHUR 1994, p. 212, fig. 99, n. 142; CIARROCCHI *et al.* 2010, p. 119, fig. 60, n. 28.

elsewhere in the villa baths, although at Naples it is found out of context.¹³²

26 – 0082.0002

Class: burnished ware

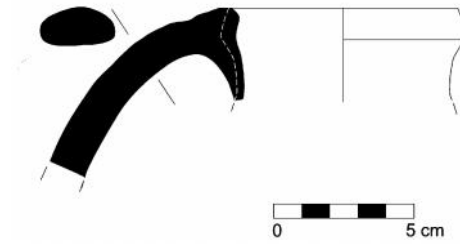
Form: jug

Type: Carminiello 142.2

Production: Naples

Chronology: 470–535 AD

Dimensions: d. 8 - h. 7,1 cm



Jug with thickened and inward-folded rim and thick handle of oval profile.

Bibliography: ARTHUR 1994, p. 212, fig. 99, n. 142.2; CIARROCCHI *et al.* 2010, p. 119, fig. 60, n. 28.

27 – 0082.0002

Class: burnished ware

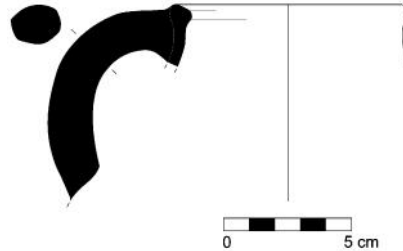
Form: jug

Type: Carminiello 147

Production: Naples

Chronology: 470–535 AD

Dimensions: d. 8,8 - h. 7,8 cm



Jug with thickened and inward-folded rim flattened on top. The thick handle has oval profile and preserves part of the round body.

Bibliography: ARTHUR 1994, p. 212, fig. 99, n. 147.

Amphorae

The containers used for the transportation of goods represent only 2,5% of all pottery attested in the *laconicum* (7 NMI). Among these, the majority comprises African products. Proceeding chronologically, the first sample can be attributed to the Africana II type. The variant presented here has thickened rim with a convex profile which corresponds to the C2 type (28), produced in the workshops of Nabeul in *Zeugitana* from the 3rd to the middle of the 4th century AD.¹³³ Two specimens, probably part of the same vessel, are identified as cylindrical amphora (Africana III/*Keay* XXV). The slightly everted thickened rim of this type corresponds to the sub-type 1 (29), dated to between the end of the 3rd and the beginning of

¹³² ARTHUR 1994, p. 212, fig. 99, n. 147.

¹³³ BONIFAY 2004, pp. 114–115 fig. 61, n. 18.

the 4th century AD. Produced in *Zeugitana* or *Byzacena*, it was probably employed in the transportation of wine or *salsamenta*. In Naples, it was found during the excavation of the harbour in contexts dating to the 4th century AD.¹³⁴ The late African amphorae are represented by a flanged rim of Spatheion 1/Keay 26 (30). This relatively small container is closely related to the previous type; some of the early variants are very similar to the late Keay XXV amphorae. Production of this type reached its peak in the first half of the 5th century and can be again placed to the specialist ateliers of Nabeul in *Zeugitana*.¹³⁵ The last type to be discussed is the LRA1. The sample found in the *laconicum* presents a slightly thickened rim with concave exterior face and poorly pronounced lip (31). It preserved part of the irregular handle which connects the rim with shoulders. This type corresponds to variant *a*, produced in Rhodes from the 4th to the 7th century AD. The LRA1 was attested on various sites in Naples, including the harbour and the Catacombs of San Gennaro.¹³⁶ In the North Vesuvian area, it was attested both in the Villa of Somma and the Roman baths.¹³⁷ In case of the latter, two of these containers were used for infant burial.

28 – 0079.0004

Class: Transport amphorae

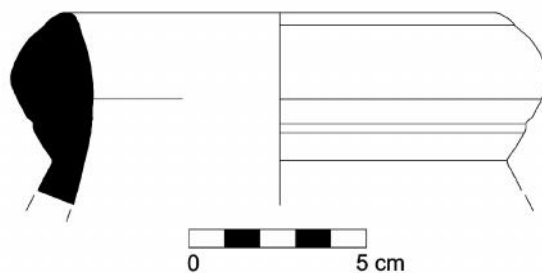
Form: amphora

Type: Africana II C2

Production: *Zeugitana*

Chronology: 200–360 AD

Dimensions: d. 12 - h. 5,4 cm



Amphora with thickened rim with convex exterior face.

Bibliography: BONIFAY 2004, pp. 114–115 fig. 61, n. 18.

¹³⁴ BONIFAY 2004, pp. 118–119, fig. 63; CARSANA–DEL VECCHIO 2010, p. 460, fig. 4, n. 7; MARTUCCI et al. 2012; p. 92.

¹³⁵ BONIFAY 2004, pp. 124–125, fig. 67; KEAY 1984, pp. 212–219.

¹³⁶ CARSANA–DEL VECCHIO 2010, p. 460; ROMANO 2016, p. 123, fig. 103; CIAROCCHI et al. 2010, p. 113, fig. 56, n. 11.

¹³⁷ MUKAI–SUGIYAMA–AOYAGI 2009, p. 4, DE SIMONE–MARTUCCI 2016, p. 133, fig. 7, n. 59.

29 – 0098.0015

Class: Transport amphorae

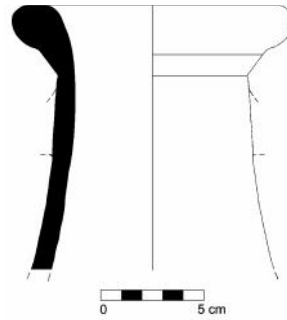
Form: amphora

Type: Africana IIIA/Keay XXVC

Production: Zeugitana/Byzacena

Chronology: 370–450 AD

Dimensions: d. 12 - h. 12,9 cm



Amphora with long conical neck. The thickened and slightly everted rim presents pronounced lip with semi-circular section.

Bibliography: BONIFAY 2004, pp. 118–119, fig. 63; CARSANA–DEL VECCHIO 2010, p. 460, fig.4, n. 7; MARTUCCI et al. 2012; p. 92.

30 – 0079.0010

Class: Transport amphorae

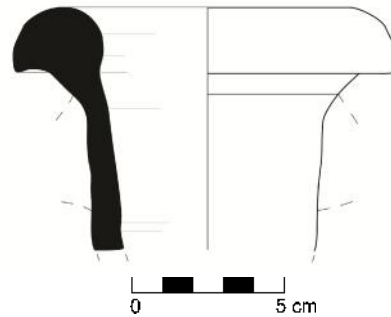
Form: amphora

Type: Spatheion 1/Keay XXVIF

Production: Zeugitana

Chronology: 440–535 AD

Dimensions: d. 9 - h. 10,5 cm



Amphora with thickened rim of flange-like profile.

Bibliography: BONIFAY 2004, pp. 124–125, fig. 67; KEAY 1984, pp. 212–219.

31 – 0098.0017

Class: Transport amphorae

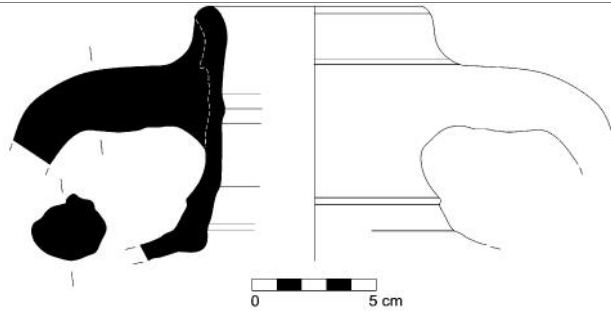
Form: amphora

Type: LRA1/Keay LIIIA

Production: Rhodes

Chronology: 440–570 AD

Dimensions: d. 9 - h. 10,5 cm



Amphora with narrow cylindrical neck and handles of irregular round profile. The rim presents concave exterior face with poorly pronounced lip.

Bibliography: KEAY 1984, p. 274, fig. 117; CARSANA–DEL VECCHIO 2010, p. 460; ROMANO 2016, p. 123, fig. 103; CIAROCCHI et al. 2010, p. 113, fig. 56, n. 11; MUKAI–SUGIYAMA–AOYAGI 2009, p. 4, DE SIMONE–MARTUCCI 2016, p. 133, fig. 7, n. 59.

Pantellerian ware

In addition to the local productions, the cooking ware from *laconicum* included a substantial number of Pantellerian casseroles (7 NMI), among which the most

represented are the Carminiello 112 form followed by the Carminiello 2 form. The first type presents a rim of squared profile and flaring walls (32). As discussed in the previous chapter, the casseroles of this form (Carminiello 112) were widely circulated in the Western Mediterranean between the 3rd and the 5th century AD, but the late variants presented here are found in Naples from the middle of the 5th to the first third of the 6th century AD.¹³⁸ The casserole (Carminiello 2) of Pantellerian origin can be found along its local imitations at least till the end of the 6th century AD. The sample from *laconicum* has a plain rim with the fully preserved ear-shaped handle (33).¹³⁹

32 – 0098.0008

Class: Pantellerian ware

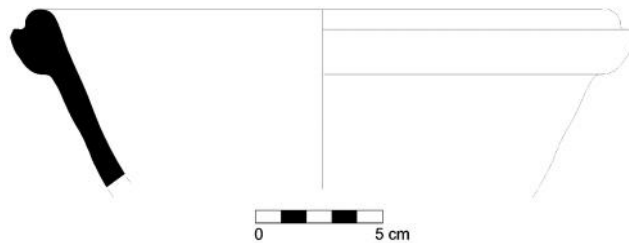
Form: casserole

Type: Carminiello 112.3

Production: Pantelleria

Chronology: 440–460 AD

Dimensions: d. 22 - h. 7 cm



Casserole with rim of square profile and flaring walls.

Bibliography: CARSANA 1994, p. 247, fig. 118, n. 92.1, CIAROCCHI *et al.* 2010, p. 130, fig. 67, n. 1.

33 – 0092.0004

Class: Pantellerian ware

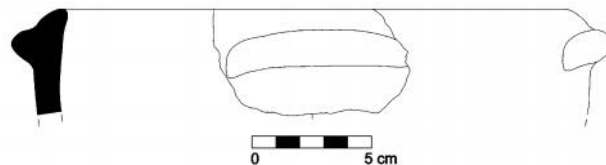
Form: casserole

Type: Carminiello 2.14

Production: Pantelleria

Chronology: 470–535 AD

Dimensions: d. 21 - h. 4,4 cm



Casserole with plain inward-folded rim and thick horizontal handle.

Bibliography: CARSANA 1994, pp. 223–224, fig. 103, n. 2.14.

Lamps

From a total of 1 394 fragments, only a small number can be attributed to lamps (3NMI). Based on a brief analysis of the fabric, two fragments can

¹³⁸ CARSANA 1994, p. 247, fig. 118, n. 92.1, CIAROCCHI *et al.* 2010, p. 130, fig. 67, n. 1.

¹³⁹ CARSANA 1994, pp. 223–224, fig. 103, n. 2.14.

be referred as Italic, while the remaining piece was produced in Africa. The latter corresponds to the general Atlante X form,¹⁴⁰ while the Italic assemblage harvested the whole discus of a lamp with wart decoration (34). This type can be attributed to the Dressel 30/Bailey R type, produced in Latium at the end of the 3rd century AD.¹⁴¹

34 – 0116.0017

Class: lamps

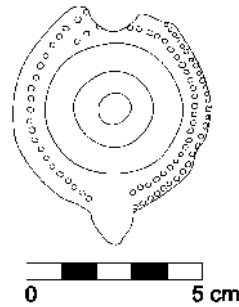
Form: lamp

Type: Dressel 30/Bailey R type

Production: Latium

Chronology: 270–300 AD

Dimensions: h. 7,1 cm



Lamp with wart decoration.

Bibliography: ATLANTE I, pp. 198-203, fig. XCIX–CI; GARCEA 1994, p. 309, fig. 139, n. 29.

African cooking ware

Only two fragments of African cooking ware has been recovered, both belonging to a dish/lid (Hayes 196A), that is, the variant produced in North Tunisia during the 3rd century AD.¹⁴² In Naples, this form is commonly found at Carminiello ai Mannesi in contexts of the second half of the 5th century AD, and is thus comparable to the finds from our site.¹⁴³

35 – 0093.0004

Class: African cooking ware

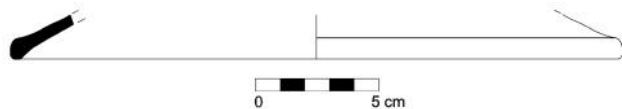
Form: dish/lid

Type: Hayes 196A

Production: Tunisia

Chronology: 200–300 AD

Dimensions: d. 24 - h. 1,8 cm



Lid with thickened rim of triangular profile.

Bibliography: ATLANTE I, p. 212, fig. CIV, nn. 5–6.

¹⁴⁰ ATLANTE I, pp. 198-203, fig. XCIX–CI.

¹⁴¹ GARCEA 1994, p. 309, fig. 139, n. 29.

¹⁴² ATLANTE I, p. 212, fig. CIV, nn. 5–6.

¹⁴³ CARSANA 1994, p. 250.

The cistern

As the rest of the lower part of the baths, the cistern (V) was sealed by the thick volcanoclastic debris belonging to the AD 472 eruption. The cultural contexts preserved underneath show a unique stratigraphy compared to the rest of the site. Absent traces of spoliation activities result in clear distinction of several stratigraphic units. The contexts with the ceramic assemblage are covered with several layers which contained numerous archaeozoological remains.¹⁴⁴ The presence of this large quantity of possible food waste or evidence for cultic activity probably marks the final phase of the well and thus makes it clear that the structure ceased to be used prior to the eruption. Presumably due to a presence of high humidity in the well, which resulted in further subsidence of some deposits, multiple fragments belonging to individual vessels were found across several different archaeological contexts. Therefore, it is logical to suggest that the lower contexts must have been created in a relatively short time span.

Pottery assemblage from the cistern

It was already clear at the time of the excavation that the deposition of the ceramic assemblage in the cistern was not the only difference to the rest of the excavated area. In fact, the represented pottery classes are dissimilar to what comes from other parts of the Roman baths (Figure 10). For example, the local cooking ware, which is the most attested class throughout the area (45 %), is far less represented in the well (11%). The cistern recovered 524 fragments of pottery (46 NMI) in total. Among these the most represented classes were common and common painted ware (19 NMI and 7 NMI), both made almost exclusively in closed shapes, followed by burnished jugs (6 NMI), cooking ware (5 NMI), *amphorae* (3 NMI), small slipped jugs (3 NMI), ARS (1 NMI) and a residual fragment of *terra sigillata* together with a fragment of an Italian lamp.

¹⁴⁴ The results of the analysis of zooarchaeological remains from the well are a subject to the following study.

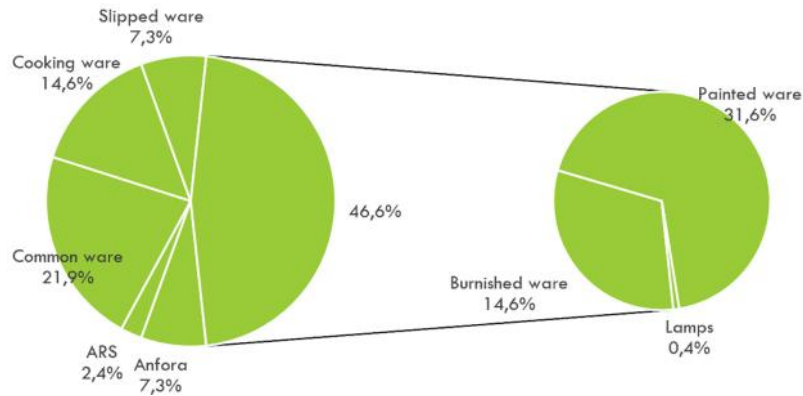


Figure 10 Pottery assemblage attested in the cistern.

Common ware

The first class to be presented is the common ware. On the contrary to the rest of the site, where it is attested only in 9,8%, in the well it represents 41% of ceramic assemblage. All the fragments attributed to this class seem to be exclusively of local production. The vessels are made of fine or medium fine clay varying from red to yellow pink, in most cases the small black inclusions of volcanic origin can be spotted on the profile, as well as the inclusions of golden mica on the surface. Due to a certain discrepancy in publication of contemporary parallels, the analysis of the common ware is generally problematic.¹⁴⁵ Among a total of 19 rims, the most well represented type consists of the group of jugs and jars with plain flaring rims and a support on top of the handle (36–38). Of particular interest is a jug of substantial dimensions with dark grey surface (36). Reconstructed from more than 40 fragments, the jug has a slightly thickened flaring rim proceeding to a cylindrical neck, which then turns into a grooved round body positioned in the lower part of the vessel. While the slightly elevated base takes the form of a simple ring foot, our attention rests on the flat handle which goes from the upper body up to the neck, where it attaches just under the rim. As in other examples (37–38), it carries some sort of profiled support attaching to the top of the rim, where the thumb was probably placed when pouring. Another attested type could be connected to the group of jugs found in Naples (Carminiello 102) from

¹⁴⁵ CARSANA–DEL VECCHIO 2010, 463.

the second quarter of the 5th century (39).¹⁴⁶ This small jug is characteristic for its partially developed double rim, which is typical of the later Neapolitan variants. The last fragment presented is the rim of a jug with almond-shaped rim, flattened on the inside, and made in light-coloured lay of local origin (40). This type does not seem to have parallels within the published evidence.

36 – 0867.0025

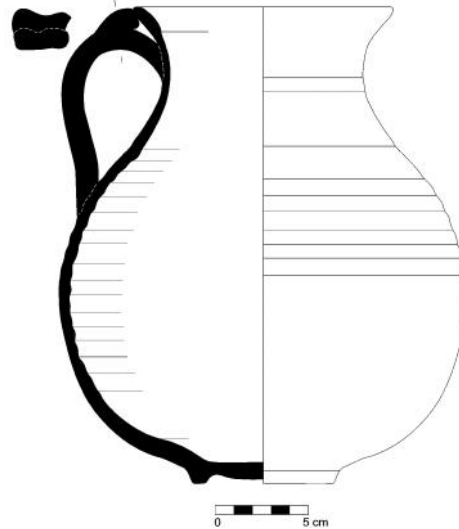
Class: common ware

Form: jug

Production: local

Dimensions: d. 13 - h. 28,7 cm

Jug with thickened flaring rim and wide neck. The rim is supported by a flat handle connected to the top of the round and grooved body. The base is made of a ring foot.



37 – 0867. 0028

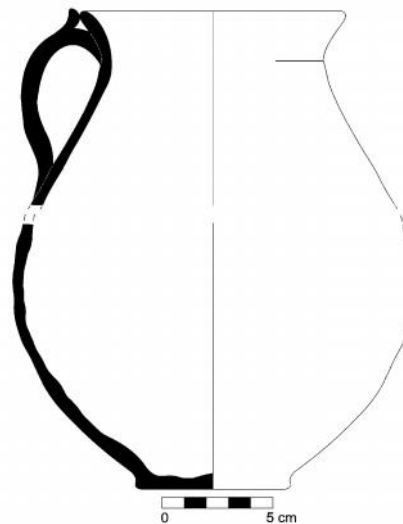
Class: common ware

Form: jug

Production: local

Dimensions: d. 11,6 - h. 23,2 cm

Jug with flaring rim supported by a flat handle connected to the top of the ovoid body. The base is simple with a flat foot.



¹⁴⁶ ARTHUR 1994, p. 205, fig. 96, type 102; CIAROCCHI *et al.* 2010, p. 119, fig. 6, type 18.

38 – 0867. 0013

Class: common ware

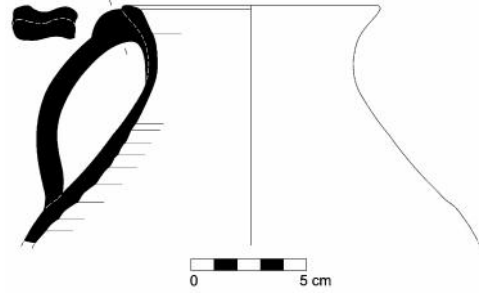
Form: jug

Production: local

Dimensions: d. 10,9 - h. 10,4 cm

Jug with flaring rim flattened on top.

The rim is supported by a flat handle connected to the top of the body.



39 – 0914. 0002

Class: common ware

Form: jug

Type: Carminiello 102

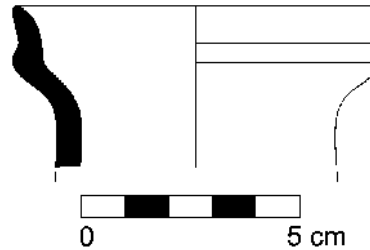
Production: local

Chronology: 425–535 AD

Dimensions: d. 11,6 - h. 23,2 cm

Jug with profiled rim and straight neck.

Bibliography: ARTHUR 1994, p. 205, fig. 96, type 102; CIAROCCHI *et al.* 2010, p. 119, fig. 6, type 18.



40 – 0867. 0012

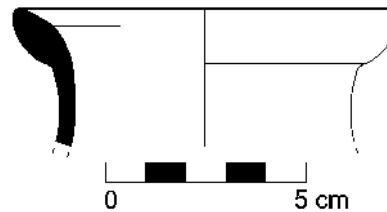
Class: common ware

Form: jug

Production: local

Dimensions: d. 9,3 - h. 3,5 cm

Jug with thickened rim of almond-shaped profile, flattened on the inside.



Painted ware

Group of jugs of considerable size were produced in painted ware. The vessels found in the well were manufactured in yellowish or reddish clay full of small volcanic inclusions and numerous inclusions of golden mica. Three single-handed jugs from a total of 7 NMI were recomposed in a complete profile. First jug with a fully developed double-moulded rim can be attributed to the type attested in Naples from the second third of the 5th

century (41).¹⁴⁷ This jug was decorated with vertical broad stripes of red and reddish grey colour copying the round shape of the vessel. The same kind of decoration is apparent on another jug with slightly round flaring rim (42). Similar form was found in Naples in the context datable from the end of the 4th to the third quarter of the 5th century.¹⁴⁸ Another restored jug differs from the later both in form and decoration (43). The thin-walled vessel presents a round thickened rim which proceeds almost immediately into an elongated long body. A significant part of the vessel's surface is grooved, but the orange paint covers only the upper third of the jug's surface. This form was found in two identical examples in the well, but only one rim was recovered. Two rims can be attributed to the more common form produced in the 5th century AD, which finds parallels in *Via Saccacio* at Nola and Ortona (44–45), and is also attested elsewhere in the Roman baths.¹⁴⁹ These jugs can be distinguished by their moulded rims, wide, almost cylindrical necks and hemispherical bodies. The paint is applied in two consistent layers and covers all the surface.

41 – 0867.0023

Class: painted ware

Form: jug

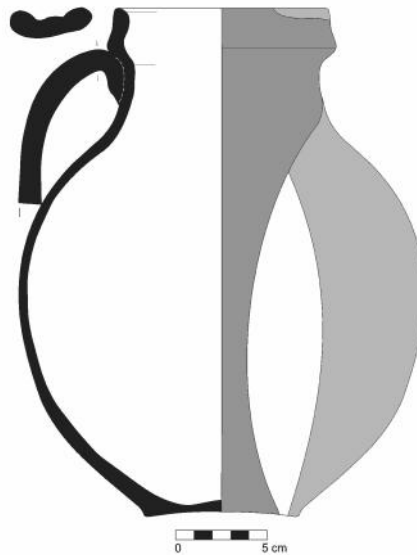
Type: Carminiello 102.3

Production: local

Chronology: 435–535 AD

Dimensions: d. 11,3 - h. 27,7 cm

Jug with double-moulded rim and flat profiled handle. The vessel is painted with vertical broad stripes of red and reddish grey colour copying the round shape of the body.



Bibliography: ARTHUR 1994, p. 205, fig. 96, type 102; CIAROCCHI *et al.* 2010, p. 119, fig. 6, type 18.

¹⁴⁷ ARTHUR 1994, p. 205, fig. 96, type 102, CIAROCCHI *et al.* 2010, p.119, fig. 60, type 18.

¹⁴⁸ CIAROCCHI *et al.* 2010, p.119, fig. 60, type 14.

¹⁴⁹ LEONE 2000, 407, tab. 6, n. 23.1, LUBRANO 2012, p. 231, fig. 3, type 8; MARTUCCI *et al.* 2014, p. 60, fig. 6, type 11.

42 – 0867.0029

Class: painted ware

Form: jug

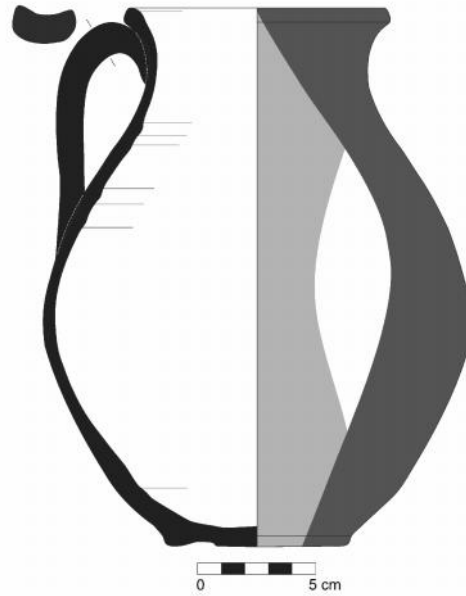
Type: Ciarocchi 14

Production: local

Chronology: 370–475 AD

Dimensions: d. 10,7 - h. 23 cm

Jug with slightly everted and rounded rim and thick flat handle. The vessel is painted with vertical broad stripes of red and reddish grey colour copying the round shape of the body.



Bibliography: CIAROCCHI *et al.* 2010, p.119, fig. 60, type 14.

43 – 0867.0023

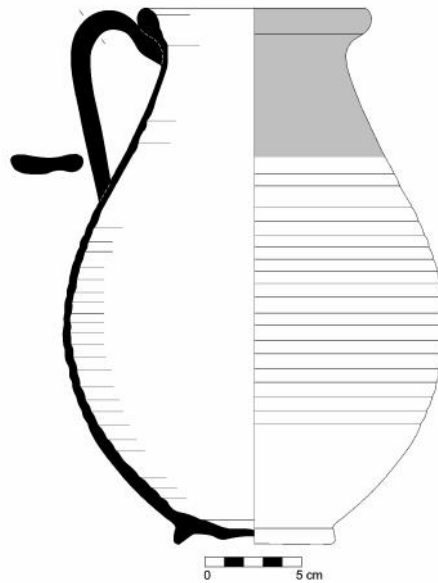
Class: painted ware

Form: jug

Production: local

Dimensions: d. 11,3 - h. 27,7 cm

Thin-walled jug with thickened and rounded rim and flat handle. Ovoid body of the vessel is corrugated both on external and internal surface. Rim and conical neck are covered with broad horizontal band of red and reddish grey paint.



44 – 0867.0015

Class: painted ware

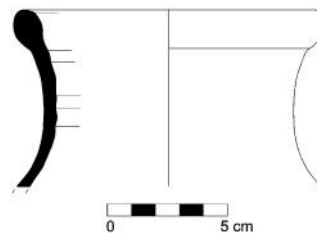
Form: jug

Production: local

Chronology: 400–499 AD

Dimensions: d. 13 - h. 7,6 cm

Jug with thickened and rounded rim and slightly concave neck.



45 – 0867.0017

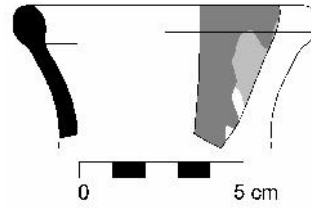
Class: painted ware

Form: jug

Production: local

Chronology: 400–499 AD

Dimensions: d. 8,4 - h. 4 cm



Jug with thickened and rounded rim. Rim and neck present traces of two different layers of paint.

Burnished ware

The presence of considerable amounts of burnished ware (13%) in the cistern suggests in general a late date for the context. Burnished jugs found in the well are mostly made from mid-coarse clay of reddish colour with numerous black volcanic inclusions. From the total of 6 NMI, all but one jug corresponds to the usual types found on the Vesuvian sites from the beginning of the 5th century. The first jug, of which two fragments were recovered, presents a thickened rim with an almost triangular profile and wide, concave neck (46). These jugs with vertical burnishing are found at Somma Vesuviana in contexts dated from the final 4th and the beginning of the 5th century AD, while in Pollena they are present up to the third quarter of the 5th century.¹⁵⁰ Another common form is a variant of a jug with double-moulded rim found in many specimens from elsewhere in the Roman villa (47)¹⁵¹. Compared to other variants, the present jug shows a wider almost cylindrical neck and less pronounced rim. Another fragment of burnished ware can be attributed to a common type of jug found in Naples from the middle of the 5th century to the 7th century AD (49).¹⁵² The jug presents a slightly flattened rim and concave neck covered with vertical burnishing, just as shown on the Neapolitan variant. The last jug differs from the previous types both in form and origin of the clay (48). This large jug had a spherical body which immediately gives way to a plain rim with a trilobate lip for pouring liquids. It was made from fine

¹⁵⁰ MUKAI–SUGIYAMA–AOYAGI 2009, p. 2, fig. 2, type 13, BENKOVÁ 2016, p. 180, fig. 2, type 12.

¹⁵¹ BENKOVÁ 2016, p. 180, fig. 2.

¹⁵² ARTHUR 1994, p. 204, fig. 95, type 94.5.

pink clay with numerous small grey and black inclusions of possible volcanic origin and abundant inclusions of white calcite in addition to golden and black mica. The surface was treated with thick layer of hard red slip and then burnished in multiple directions, leaving a sort of mixed pattern.

46 – 0867.0021

Class: burnished ware

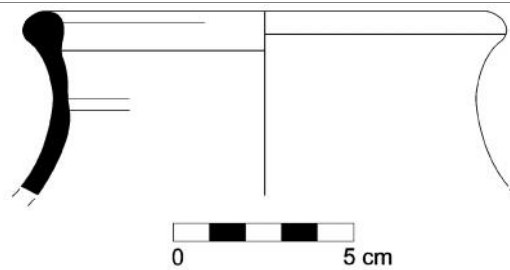
Form: jug

Type: Mukai 13

Production: local

Chronology: 370–472 AD

Dimensions: d. 12,2 - h. 5,1 cm



Jug with thickened rim of triangular profile and wide concave neck.

Bibliography: MUKAI–SUGIYAMA–AOYAGI 2009, p. 2, fig. 2, type 13, BENKOVÁ 2016, p. 180, fig. 2, type 12.

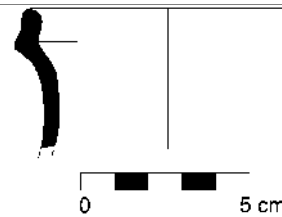
47 – 0867.0022

Class: burnished ware

Form: jug

Production: Naples?

Dimensions: d. 8,2 - h. 4,1 cm



Small jug with double-moulded rim.

Bibliography: BENKOVÁ 2016, p. 180, fig. 2.

48 –

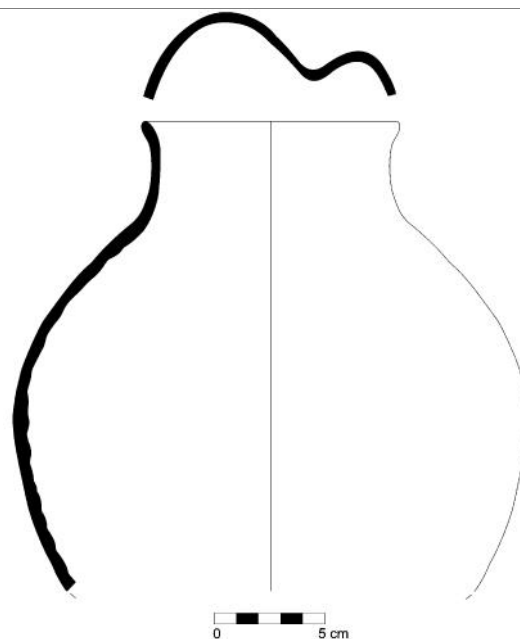
Class: burnished ware

Form: three-foiled jug

Production: local

Dimensions: d. 12,2 - h. 5,1 cm

Large jug with spherical body and plain rim with trilobate lip for pouring liquids.



49 – 0867.0020

Class: burnished ware

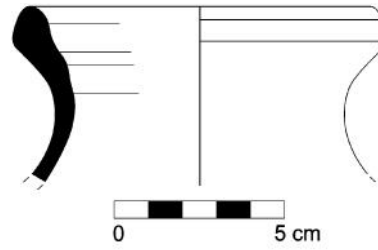
Form: jug

Type: Carminiello 94.5

Production: local

Chronology: 450–699 AD

Dimensions: d. 10,5 - h. 5,2 cm



Jug with concave neck and slightly flattened rim with profiled inner rim face.

Bibliography: ARTHUR 1994, p. 204, fig. 95, type 94.5.

Cooking ware

As stressed before, the cooking ware represents less than 10% of individuals found in the cistern. First to be presented is a group of two bread-cooking dishes which were produced in Vesuvian area (50–51). Both dishes are a variant of the type attested at the nearby Roman villa in Somma Vesuviana in contexts dated to the end of the 4th–early 5th century AD.¹⁵³ Compared to the later, more evolved form, this type has slightly flaring walls and a plain rounded rim, the base is separated from the wall with a pointed edge. Another cooking ware presented here is a cooking pot recovered from total of 48 sherds (52). Currently undergoing the restorative interventions, this high-volume container represents a type with long history in the archaeology of Campania. The pot with flanged rim belongs to the classic repertoire of the 1st and 2nd century AD, but the later varieties of this type are well-documented up to the 5th century AD.¹⁵⁴

50 – 0867.0002

Class: cooking ware

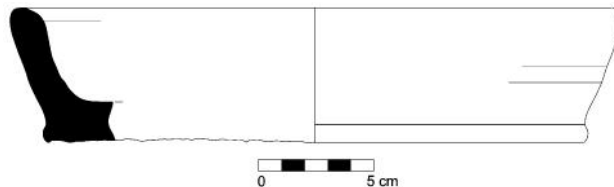
Form: bread-cooking dish

Type: Mukai 35

Production: Vesuvian

Chronology: 370–472 AD

Dimensions: d. 25,6 - h. 5,8 cm



Bread-cooking dish with flaring walls, plain rounded rim and flat base.

¹⁵³ MUKAI–SUGIYAMA–AOYAGI 2009, p. 2, fig. 6, n. 35; PAGANO 1991, p. 183, fig. 36, A–E.

¹⁵⁴ CARSANA–DEL VECCHIO 2010, p. 461, fig. 6.21–25.

Bibliography: MUKAI-SUGIYAMA-AOYAGI 2009, p. 2, fig. 6, n. 35; PAGANO 1991, p. 183, fig. 36, A-E.

51 – 0867.0003

Class: cooking ware

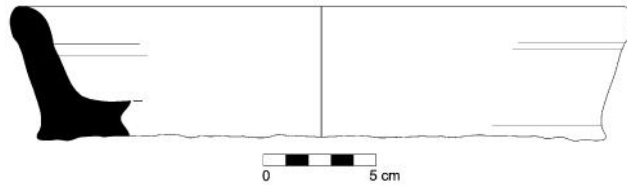
Form: bread-cooking dish

Type: Mukai 35

Production: Vesuvian

Chronology: 370–472 AD

Dimensions: d. 26,8 - h. 5,8 cm



Bread-cooking dish with flaring walls, plain rounded rim and flat base.

Bibliography: MUKAI-SUGIYAMA-AOYAGI 2009, p. 2, fig. 6, n. 35; PAGANO 1991, p. 183, fig. 36, A-E.

52 – 0914.0004

Class: cooking ware

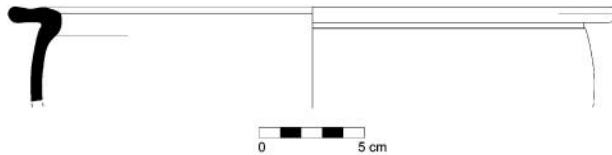
Form: cooking pot

Type: Carsana 21–25

Production: local

Chronology: 370–499 AD

Dimensions: d. 25,6 - h. 4,7 cm



High-volume pot with flanged rim and corrugated walls.

Bibliography: CARSANA-DEL VECCHIO 2010, p. 461, fig. 6.21–25.

Amphorae

The amphorae found in the cistern represent common types circulating in the Mediterranean during Late Roman period. The first amphora corresponds to the type *Keay XXV*¹⁵⁵, produced from the early 4th to the middle of the 5th century AD in Tunisia (53). It is one of the most common types found in the Bay of Naples as it is well documented both in the city and in the Vesuvian area.¹⁵⁶ The amphora found in the well has a thickened and outward-folded rim of an almost semi-circular profile and it corresponds to Keay's variant B. The thick handle is attached to the straight neck just under the rim. The vessel destined for the transport of

¹⁵⁵ KEAY 1984, p. 200.

¹⁵⁶ ARTHUR 1983, p. 389, fig. 2, type 1; CARSANA-DEL VECCHIO 2010, p. 460, CIAROCCHI *et al.* 2010, p. 112; ROMANO 2016, p. 86; DE CAROLIS-SORICELLI 2005, p. 522; MARTUCCI *et al.* 2012; p. 92, MUKAI 2008, p. 2.

oil from North Africa was recovered in 14 fragments and is currently undergoing conservation. Another Tunisian amphora attested in the cistern is a type *Keay XXXIX* (54).¹⁵⁷ In fact it is the only individual of this form found in the Roman villa. The vessel was produced from the 4th to the middle of the 5th century AD, but the original contents are unknown. The last fragment of amphora is a type *Almagro 51C* (55).¹⁵⁸ This vessel with wide conical neck and thickened rim, slightly flattened on top, was produced on the Iberian Peninsula from the early 4th century AD to the 5th century AD, but its original content remains unclear. In Naples it is attested in the contexts of the 5th century in *Porto* and in the Roman Theatre,¹⁵⁹ in the Vesuvian area it was again found in the baths at Pollena.

53 – 0914.0006

Class: transport amphora

Form: amphora

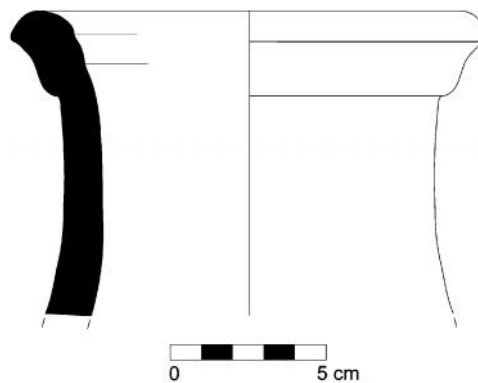
Type: *Africana IIIA/Keay XXVB*

Production: *Zeugitana/Byzacena*

Chronology: 370–450 AD

Dimensions: d. 13,5 - h. 9,6 cm

Amphora with thickened rim of almost semi-circular profile.



Bibliography: KEAY 1984, p. 200; ARTHUR 1983, p. 389, fig. 2, type 1; CARSANA–DEL VECCHIO 2010, p. 460, CIAROCCHI *et al.* 2010, p. 112; ROMANO 2016, p. 86; DE CAROLIS–SORICELLI 2005, p. 522; MARTUCCI *et al.* 2012; p. 92, MUKAI 2008, p. 2;

54 – 0914.0009

Class: transport amphora

Form: amphora

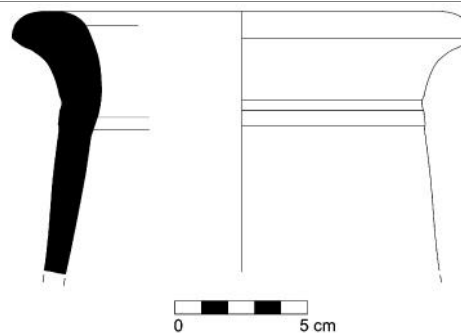
Type: *Keay XXXIX*

Production: Tunisia

Chronology: 300–450 AD

Dimensions: d. 14 - h. 9,8 cm

Amphora with wide conical neck and thickened rim, slightly flattened on top.



Bibliography: KEAY 1984, p. 250.

¹⁵⁷ KEAY 1984, p. 250.

¹⁵⁸ KEAY 1984, pp. 151, 173.

¹⁵⁹ CARSANA–DEL VECCHIO 2010, p. 460; CIAROCCHI *et al.* 2010, p. 114.

55 – 0867.0001

Class: transport amphora

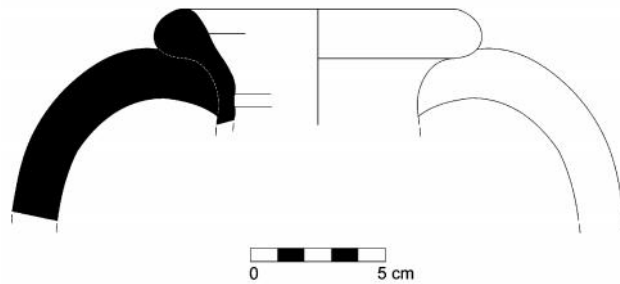
Form: amphora

Type: Almagro 51C

Production: Spain

Chronology: 320–499 AD

Dimensions: d. 10 - h. 8,4 cm



Amphora with flaring and thickened rounded rim and round handles.

Bibliography: KEAY 1984, pp. 151, 173; CARSANA–DEL VECCHIO 2010, p. 460; CIAROCCHI *et al.* 2010, p. 114.

Colour-coated ware

The last group discussed in this paper is colour-coated ware. The fragment of a jug with a flaring rim belongs to the vast group of small single-handled jugs with straight necks and round or ovoid bodies (56). This type of jug is not unknown in the *Masseria de Carolis* villa baths, whilst in Naples it is found in contexts dated to the middle of the 5th century AD.¹⁶⁰ The second rim belongs to the small wide-mouthed jug (57). The missing handle was originally attached to the straight long neck just under the rim. This jug was most likely made in Northern Campania, where it is also attested in the Villa Posto in the phase dated from the middle of the 4th to the middle of the 5th century AD.

56 – 0867.0004

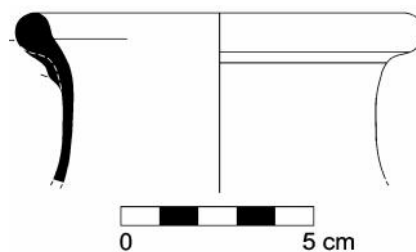
Class: colour-coated ware

Form: jug

Production: Campania

Chronology: 440–460 AD

Dimensions: d. 9,6 - h. 4,8 cm



Thin-walled jug with wide neck and thickened rim of round profile. Flat handle was originally attached to cylindrical neck just under the rim.

Bibliography: CARSANA–DEL VECCHIO 2010, p. 460; CIAROCCHI *et al.* 2010, p. 114.

¹⁶⁰ SORICELLI 2015, p. 194; ARTHUR 1994, p. 199, fig. 94, type 86.1; CIAROCCHI *et al.* 2010, p. 117, fig. 59, type 12.

57 – 0867.0006

Class: colour-coated ware

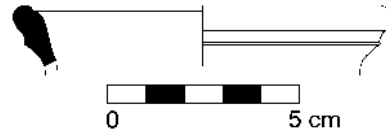
Form: jug/olla

Type: Carminiello 86.1

Production: Campania

Chronology: 350–450 AD

Dimensions: d. 9,2 - h. 1,7 cm



Small jug/olla with thickened and richly decorated rim.

Bibliography: SORICELLI 2015, p. 194; ARTHUR 1994, p. 199, fig. 94, type 86.1; CIAROCCHI *et al.* 2010, p. 117, fig. 59, type 12.

Conclusion

The data presented in this study provide us with a rather complex picture. Both assemblages analysed here can be dated to the villas late phase. While the *laconicum* contained also a great part of the residual fragments, such as the ARS or the African cooking ware, the assemblage from the cistern was almost entirely of local origin. The virtual absence of African table- and cooking ware is striking. As we know, the African products were still imported on a large scale into the Vesuvian area during the 5th century AD. However, the importance of local workshops grew towards the end of the 5th century, while the number of attested ARS and African cooking ware decreased at the same time, besides the African products were often replaced with local imitations. Thus, the higher presence of local productions versus the minimal number of imported goods in the cistern makes it generally more likely that the dating of the finds lies closer to the AD 472 eruption, when volcanoclastic debris sealed both the cistern and the rest of the area of the baths. Meanwhile, it needs to be pointed out that these calculations assume that we can date the volcanoclastic debris to the eruption of AD 472; there is still debate about which volcanic event caused the destruction of those Roman sites. However, when comparing the pottery assemblage, what we have in the Roman baths at Masseria de Carolis is very much consistent with what is witnessed in Naples in the phases dating to before the end of the 5th century. Linking our assemblage to what we find in the city at the beginning of the 6th century AD would appear difficult to justify, particularly when it comes to the ARS. The evidence presented here makes the linking of the thick volcanoclastic debris to the AD 472 eruption even more secure, as it fits perfectly into the proposed chronological framework, i.e. between the middle of the 5th century and AD 472.

When it comes to the typology, the two assemblages share only a little. In fact, lone three similar forms were attested in both contexts. These are the fragments of the Tunisian amphora (Keay XXV), the bread-cooking dish (Mukai 35) and the high-volume jug with thickened rim (Carminiello

94), all sharing a rather wide production timespan to be used as a sharp chronological marker. Looking at the attested pottery classes, both contexts show a clear predominance of one class - the local cooking ware in the *laconicum* and the common ware in the cistern. While the higher accumulation of one class is probably just random in case of the *laconicum*, when it comes to the cistern the high number of jugs made in coarse but also other wares could be easily associated with the water-supply system. Although the reconstruction of the latter counts with the variant of the water being transported by the lifting mechanism to the upper cistern, the excavation did not uncover any traces of this original device. Thus, it is possible to assume that after the baths went into misuse, the mechanism was dismantled, but the water would be further carried away in clay containers. Whether this activity was associated with the people living in the residential part of the villa remains unclear. In fact, the water-supply system attested in the baths does not seem to be physically connected with the villa itself. Therefore, the residential part must have been supplied from another water source. However, the virtual absence of residual finds from the 4th and the early 5th century in the cistern suggests the facility have been still in the third quarter of the 5th century. The final phase of the water-supply system is clearly marked by the presence of a large zooarchaeological assemblage, as the organic waste would have easily contaminated the water. Unfortunately, no ceramics were directly associated with this deposit, thus it is not possible to narrow our chronology.

Based on the fragmentation rate, the pottery recovered from the cistern can be divided into two groups. The first comprises a rather consistent group of large containers connected to the supply and serving of liquids, while the second is made up of a mixed assemblage of individual fragments of tableware and very few pieces of cooking ware and *amphorae*. One exception is a single cooking pot with a flat rim, currently undergoing conservation, which was found in 48 pieces. Looking at the two types of finds together (ceramic and zooarchaeological), the presence of containers for serving of liquids (wine?) and a large cooking pot for the

preparation of meat could be perhaps associated with the food waste from the upper fill. Unfortunately, the stratigraphy does not allow the further elaboration of this hypothesis, as no actual connection can be drawn between the residues from each fill.

Finally, it seems clear that the cistern hardly made part of the rubbish deposit identified in the rest of the baths. This is implied both from the low number of sherds but also from the quite consistent typology, which calls for the association with the original purpose of the space. Thus, it provides a unique picture when compared to the rest of the villa baths, where our knowledge of the primary function is fostered exclusively by the study of the architectonic remains.

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